CAT Reporting Technical Specifications for Industry Members

1/22/2025 Version 4.1.0 r5

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Preface

Rule 613 of the Securities Exchange Act of 1934 requires national securities exchanges and national securities associations ("SROs") to submit a national market system plan to the Securities and Exchange Commission ("Commission" or "SEC") to create, implement, and maintain a consolidated audit trail (the "CAT") that would allow regulators to more efficiently and accurately track all activity in U.S. equity and listed options markets. Pursuant to Rule 613, the SROs filed with the Commission the National Market System Plan Governing the Consolidated Audit Trail ("CAT NMS Plan"), which was approved by the Commission on November 15, 2016.

Under Rule 613(g)(2), each member of a national securities exchange or national securities association is required to comply with all the provisions of the CAT NMS Plan. Relatedly, as mandated under Rule 613, the CAT NMS Plan requires each SRO to adopt rules requiring its members to comply with Rule 613 and the CAT NMS Plan, and to agree to enforce compliance by its members in that regard. Accordingly, each SRO has adopted rules requiring its members to comply with Rule 613 and the CAT NMS Plan. See, e.g., FINRA Rule 6800 Series.

The SROs jointly own Consolidated Audit Trail, LLC, which was formed by the SROs to arrange for and oversee the creation, implementation, and maintenance of the CAT as required under Rule 613. Thus, the CAT is a facility of each SRO.

This specification represents a phased approach to industry reporting. Key dates are as noted below. Version 4.0 of this specification reflects finalized Phase 2d reporting requirements based on versions 2.2.1 r6 and 3.1.0 r4. The Participants propose to seek a modification of the requirements of the CAT NMS Plan from the Commission to reflect the phased approach for Industry Member CAT reporting described in these Technical Specifications.

Table 1: Industry Specifications Phased Approach

Phase 2a – Equities Part 1 Go Live 6/22/2020	Phase 2c – Equities Part 2 Go Live 4/26/2021
All events and scenarios covered by OATS	Linkages to the customer order(s) being represented for all representative order scenarios including agency average price, net trading, aggregated orders, OMS-EMS scenarios
All proprietary orders including market maker orders	Marking as a representative order any order originated to work a customer order in price guarantee scenarios, such as a guaranteed VWAP
Firm Designated ID	Rejected External Routes with flag indicating route was not accepted by receiving destination
All street side representative orders (both agency and proprietary)	Linkage of duplicate electronic messages related to a Manual Order Event between the electronic event and the original manual route

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Linkage is required between the representative street side order and the order being represented when the	Special Handling instructions on Route Reports (limited to a defined set of values)
representative order was originated specifically to represent a single order (received either from a customer or another broker-dealer) and there is: 1) an	Reporting changes to client instructions regarding modifications to algorithms
existing direct electronic link in the firm's system between the order being represented and the representative order, and 2) any resulting executions are immediately and automatically applied to the represented order in the firm's system	Order Effective Time for orders that are received by an Industry Member and do not become effective until a later time.
Quotes in NMS stocks sent to a national securities exchange or facility of a national securities association (not including verbal quotes until July 2023) ¹	Internal Route modifications and cancels (equities)
Unlisted quotes (OTC Equity Securities) received by a broker-dealer operating an inter-dealer quotation system (e.g., Global OTC, OTC Link) (not including verbal quotes until July 2023)	Responses to RFQs/solicitations through standard electronic messaging integrated with a firm's OMS/EMS (equities)
Unlisted equity quotes that meet the definition of bid or offer under the Plan sent by a broker-dealer to a quotation venue not operated by an SRO or broker-dealer *see above comment on verbal quotes	Allocations (equities)
Electronic and manual capture time for manual orders	All FDIDs with LTIDs for accounts with equity and option CAT Reportable events in Phases 2a, 2b and 2c
OATS guidance regarding firm modifications to previously routed orders applies to CAT	

Phase 2b – Options Part 1 Go Live 7/20/2020	Phase 2d – Options Part 2 Go Live, Additional Equities Scope 12/13/2021
Simple options electronic orders, excluding electronic	Simple options manual orders
paired orders	Electronic paired orders
Responses to auctions of simple orders and paired simple orders	All complex orders with linkage to all CAT-reportable legs
Options combined orders must be reported and marked as a combined order. Linkage to the underlying orders is not required to be reported until Phase 2d	Revisit application of OATS guidance to CAT for firm modifications to previously routed orders and require reporting in certain instances
	Internal Route modifications and cancels (options)
	Receipt time of cancellation and modification instructions through Order Cancel Request and Order Modification Request events (for options and equities).
	Unlisted quotes sent to an inter-dealer quotation system operated by a CAT Reporter that does not match or execute orders.

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¹ On March 31, 2023, the Plan Participants filed a Request for Exemptive relief requesting, among other things, an extension of the Exemptive relief regarding reporting of certain verbal activity through July 31, 2026. On July 28, 2023, the Commission extended the temporary relief granted in the 2020 Order for an additional three years, to July 31, 2026.

All OTC Link messages reported as orders
Responses to RFQs/solicitations through standard electronic messaging integrated with a firm's OMS/EMS (options)
Linkage between an options combined order and the original customer orders
Allocations (options)
All FDIDs with LTIDs for accounts with options CAT Reportable events in Phase 2d
Quote ID associated with Trade Events.

Phase 2e - 7/11/2022²

Remainder of Customer and Account information

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 $^{^2}$ For the most recent information on the Phase 2e reporting timeline, see <u>CAT Alert 2022-01</u>.

Executive Summary

This document describes the requirements for the reporting of data to CAT by Industry Members, including detailed information about data elements and file formats of each Reportable Event. It also describes how Industry Members submit files to CAT, including access instructions, network and transport options, and testing requirements.

A separate companion document containing detailed reporting scenarios entitled <u>CAT Industry Member</u>
<u>Reporting Scenarios</u> should be used as a guide for determining how the event types and field values laid out in this document must be applied when reporting various order handling and execution scenarios for both equities and options.

Table 2: Revision / Change Process

Version	Date	Author	Description
4.0.0	6/30/20	Consolidated	Initial publication for Phase 2d.
		Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Removed language regarding Phase 2a/2b/2c reporting requirements, ungrayed fields and values required to be reported in Phase 2d
			Added and defined new events and fields applicable to Phase 2d reporting
			Updated <i>orderID</i> uniqueness requirements for modification events
			Clarified requirements for reporting Quote events
			Removed priorUnlinked and nextUnlinked fields
			Updated definition of <i>manualFlag</i> in MEOMR and MEOCR events
			Removed routedOrderID, aggregatedOrders, representativeInd, and initiator fields from MEOMR event and updated applicable linkage keys
			Updated definition of <i>custType</i> values in the <u>Data</u> <u>Dictionary</u>
			Added timeInForce to MOOJ
			Added side value 'S' for options events
4.0.0 r1	8/11/20	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Made conforming changes with v3.1.0 r5
4.0.0 r2	9/9/20	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming changes with v2.2.1 r7 and v3.1.0 r6
			Updated Requirements for Cancel Request and Modification Request events in Section 2.6.2, Section 4 and Section 5
			Corrected a typo on <u>Table 79</u>
			Corrected the routeRejectedFlag on the MLOR event to

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Version	Date	Author	Description
			be required
			Added allowable values for <i>multiLegInd</i> in the <u>Data</u> <u>Dictionary</u>
			Added field pairedOrderID to Data Dictionary
4.0.0 r3	11/6/20	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v2.2.1 r8 – refer to v2.2.1 r8 change log
			Conforming changes with v3.1.0 r7 – refer to v3.1.0 r7 change log
			Changes applicable beginning in Phase 2d:
			Removed requirement to change orderID on modification events
			Revisited field positions which were previously populated with the <i>priorUnlinked</i> and <i>nextUnlinked</i> flags and changed to <i>retiredFieldPosition</i> . Moved any new fields that were subsequently populated in these positions to new positions at the end of the record.
			Added multiLegInd to MEOT event
			Added cance/Qty to MEOCR and MEOMR events
			Clarified requirements for combined Multi-Leg orders in Section 5.2.1
			Corrected orderType on MOOE from C to R
			Corrected type field in MOAA event and MOCR event
			Corrected field positions in MOMR event and MLOR event
			Corrected Message Types in <u>Table 49</u>
			Removed <i>type</i> value 'MONP' in the <u>Data Dictionary</u>
			Removed duplicate <i>handlingInstructions</i> values in the <u>Data Dictionary</u>
4.0.0 r4	12/4/20	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v2.2.1 r9 – refer to v2.2.1 r9 change log
			Conforming changes with v3.1.0 r8 – refer to v3.1.0 r8 change log
			Changes applicable beginning in Phase 2d:
			Added new Multi-Leg events
			Added <i>requestTimestamp</i> to modification and cancellation events
			Added manualOrderID, manualOrderKeyDate, and electronicDupFlag to Multi-Leg Option Order events
			Removed <i>electronicTimestamp</i> from MLCO event
			Removed <i>leavesQty</i> on the MOOMR event

Version 4.1.0 r5 xiii

Version	Date	Author	Description
			Removed deptType on MOOE and MLOM events
			Clarified the definition of <i>leavesQty</i> on events in <u>Section</u> <u>4</u> and <u>5</u>
			Clarified the requirements for reporting Route Modified and Route Cancelled events
			Clarified use of Multi-Leg Child Order event
			Clarified requirements in <u>Table 6</u>
4.0.0 r5	1/8/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v3.1.0 r9 – refer to v3.1.0 r9 change log
			Changes applicable beginning in Phase 2d: Added numberOfCATLegs field to multi-leg events
			Added marketCenterID values for options exchanges
			Added routeRejectedFlag field to MECR, MOCR and MLCR events
			Added <i>electronicTimestamp</i> to MEMR, MOMR, and MLMR events
			Added infoBarrierID field to MEOR, MEOT, MECO, MEOF, and MEIC events
			Added <i>netPrice</i> field to option and equity events
			Removed optional <i>quantity</i> field from Side Details
			Added handlingInstructions value 'OFF'
			Added linkageKey to Linkage Feedback Files
			Added new error codes 2200-2211 Corrected <i>priorRoutedOrderID</i> field in events to Text 64
			to be consistent with <u>Data Dictionary</u>
			Clarified requirements for MLCO event
			Updated events in <u>Tables 50</u> and <u>51</u>
4.0.0 r6	2/5/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v3.1.0 r10 – refer to v3.1.0 r10 change log
			Changes applicable beginning in Phase 2d:
			Updated <i>orderID</i> requirement on Internal Routes
			Added placeholder for <i>priceType</i> field on Multi-Leg events
			Removed <i>legDetails</i> from MLCR, MLIC, MLICR and MLCOC events
			Removed affiliateFlag from MLOM event
			Reverted changes to numberOfLegs field and removed numberOfCATLegs field
			Added Option Order Fulfillment Supplement event
			Added fulfillmentLinkType value 'OS'

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Version	Date	Author	Description
			Changed requirements for Side Details on MOFA events
			Added handlingInstructions values 'DLVF', 'DLVT', 'NCTR', 'CTR', 'OCP', 'TTU'
			Added timeInForce value 'GFD'
			Added MERQ, MEQM and MEQS events and updated related fields on MENQ, MEQR and MEQC events
			Added dupROIDCond to MENQ and MEQR events
			Added manualFlag to MENQ, MEQR and MEQC events
			Corrected instances of dupROIDInd to dupROIDCond
			Clarified requirements for reporting <i>quoteID</i> on New Quote events
			Removed <i>quoteID, quoteKeyDate,</i> and <i>quotingIDQS</i> from MEOT event
			Added <i>quoteID</i> and <i>quoteKeyDate</i> to MEOR event
			Updated IDQS Linkage Key fields in <u>Section 2.6</u>
			Updated criteria for manualFlag on MOOT event
			Updated the definition of handlingInstructions value 'CMPX'
			Clarified requirements for reporting trades, fulfillments, and allocations associated with a multi-leg order
			Clarified language for <i>requestTimestamp</i> field
			Removed Error Code 2183
			Updated requirements for reporting Route Modified events
4.0.0 r7	3/5/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v3.1.0 r11 – refer to v3.1.0 r11 change log
			Changes applicable beginning in Phase 2d.
			Changes applicable beginning in Phase 2d: Added <i>TIDType</i> field to allocation events, removed custType field and removed Error Code 2174
			Defined <i>priceType</i> field and values
			Removed <i>handlingInstructions</i> value 'CNH' and added value 'CASH'
			Removed <i>handlingInstructions</i> value 'GVWAP' and added value 'GP'
			Clarified the <i>handlingInstructions</i> values 'DLVT' and 'DLVF'
			Updated requirements in <u>Table 6</u> for unsolicited cancels/modifications
			Clarified the guidance for reporting partial cancels
			Clarified the guidance for reporting modifications of a multi-leg order
			Added Section 3.8 with guidance from FAQ B71
			Added Quote Key to Quote Status event
			Changed seqNum on MEQR event from conditional to Required

Version 4.1.0 r5 xv

Version	Date	Author	Description
			Clarified the definition of seqNum on quote events
			Replaced <i>leavesQty</i> field with <i>cancelQty</i> field on Internal Route Cancel Request events
			Added leavesQty and cancelQty to MLOC event
			Removed netPrice field from MECR event
			Removed <i>side</i> field from the body of MLMR, MLIM, MLIMR, MLCOC, MLCOM, and MLOMR
			Clarified future requirement to change <i>orderID</i> s on internal routes
4.0.0 r8	4/5/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v3.1.0 r12 – refer to v3.1.0 r12 change log
			Changes applicable beginning in Phase 2d:
			Corrected the previous change log
			Removed <i>allocationType</i> values 'FCUS', 'FDVP', 'FCSF', and 'FDVF'
			Added infoBarrierID to MEOC and MEOCR events
			Changed <i>legDetails</i> on MLOS event from Required to Conditional
			Changed <i>price</i> and <i>priceType</i> fields to conditional on multi-leg events
			Updated uses for reporting a Quote Modified event
			Clarified requirements for the <i>seqNum</i> field on the MERQ event
			Updated definition of <i>eventTimestamp</i> in Route Modified and Cancelled events and updated <u>Table 6</u>
			Clarified when MOOT events are required to be reported
			Corrected language for <i>orderID</i> requirements on Multi- Leg Order Internal Route events
			Added error codes 2213-2216, and 3603
4.0.0 r9	6/18/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Conforming Changes:
			Conforming changes with v3.1.0 r13 – refer to v3.1.0 r13 change log
			Changes applicable beginning in Phase 2d:
			Updated requirements for MOOT event and MOOT Linkage Key
			Removed the <i>handlingInstructions</i> value 'SMT'
			Updated the definition of 'Trading Algorithm' in the Glossary and removed the definition of 'Smart Router'
			Add multiLegInd field to MEOTS event
			Added allocationType value 'AVP'
			Added handlingInstructions values 'AIP'
			Changed the definition of handlingInstructions value

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Version	Date	Author	Description
			'CAC'
			Clarified the definition of <i>handlingInstructions</i> values 'CASH', 'CMPX', 'DISP', 'DISQ', 'ND' and 'QCC'
			Added Data Type to handlingInstructions value 'SWQ'
			Changed the Data Type of <i>handlingInstructions</i> values 'DLVT' and 'DVLF'
			Added <i>manualFlag</i> field and changed <i>routedOrderID</i> from Required to Conditional on MOORS event
			Clarified uses for MOORS event
			Changed <i>firmDetails</i> on MOOF from Required to Conditional
			Clarified that <i>fulfillmentLinkType</i> value 'OML' is applicable to both equities and options in <u>Data Dictionary</u>
			Clarified that <i>representativeInd</i> values 'OML' and 'OMS' are applicable to multi-leg events in <u>Data Dictionary</u>
			Clarified use of <i>representativeInd</i> value 'OML' in Appendix C
			Changed <i>receivedQuoteID</i> field on MEQR from Required to Conditional
			Corrected IDQS Linkage Key fields
			Clarified cancel/modification request language
			Clarified requirements for unsolicited cancellations/modification in <u>Table 6</u>
			Clarified requirements for netPrice field
			Corrected a typo in the <i>senderType</i> field on the MEOMR event
			Corrected Route Linkage Key fields on MLOA event
			Corrected requirements for re-use of OrderIDs on an MOMR and MLMR events
			Clarified the definition of custDspIntrFlag field
			Clarified the Manual Order Key on Multi-Leg events
			Added new Error Codes 2217, 6021, 6023
4.0.0 r10	8/2/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Changes applicable beginning in Phase 2d:
			Added new MEMRS, MECRS, MOMRS, and MOCRS events
			Clarified reporting requirements for Multi-Leg Supplement events
			Changed TIDType field from Required to Optional
			Added new <i>allocationType</i> value 'CMTA'
			Added new field occClearingMemberID to options allocations events and added new Error Code 2218
			Added handlingInstructions values 'LCE' and 'PBG'
			Clarified handlingInstructions value 'AOK'
			Removed <i>DVPCustodianID</i> field from options allocations events
			Removed <i>leavesQty</i> field from MEMR, MECR, MEIMR, MOMR, MOCR, MOIMR, MLMR, MLCR, and MLIMR events

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Version	Date	Author	Description
			Added timeInForce field to MOOMR and MLOMR events
			Corrected <i>priorOrderID</i> on MOOM from Required to Conditional
			Added Section 2.6.3.7 for Equity Exchange Trade Linkage
			Changed MOOT Linkage Key to Exchange Trade Linkage Key
			Clarified the requirements for populating the <i>netPrice</i> field on simple equity and option events
			Clarified requirements for pairedOrderID in Section 3.7
			Clarified the requirements for reporting allocation events
			Clarified the validations for <i>symbol</i> or <i>optionID</i> field on allocation events
			Clarified the requirements for reporting requestTimestamp and request events
			Split Error Code 6025 into two codes – 6025 and 6027 Added Error Code 6029
			Updated definition of Error Codes 2060 and 2098
			Updated Table 1
4.0.0 r11	10/8/21	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Changes applicable beginning in Phase 2d:
			Removed OATS references
			Corrected typos in the Equity, Simple Option and Multi- Leg Option Events tables and in the <i>type</i> field in the <u>Data</u> <u>Dictionary</u>
			Added link to Options Exchanges Trade Field Mapping document in Section 2.6.3.6 Options Floor Trades
			Corrected Linkage Keys on MEOT and MLOA event
			Update description of <i>price</i> on MLNO, MLOR, MLMR, MLOA, MLIR, MLIM, MLIMR, MLCO, MLCOM, MLOM, and MLOMR events
			Clarified requirements for reporting Route Supplement Events (MEORS, MECRS, MEMRS, MOORS, MOCRS, and MOMRS)
			Updated references to "customer" and/or "client" throughout
			Updated representativeInd and fulfillmentLinkType fields values 'YE' and 'YP' throughout to remind IMs that linkage will be required when exemptive relief expires on July 31, 2023
			Updated/clarified FDID Plan Language, references, masking requirements and change/replacement guidance in Section 2.4.2
			Updated description of <i>TIDType</i> in MEPA, MEAA, MOPA, and MOAA events and the <u>Data Dictionary</u>
			Updated description of eventTimestamp on MEPA and MOPA events and in <u>Data Dictionary</u> to align with FAQ U9
			Changed <i>electronicTimestamp</i> field from Conditional to Optional on MEOT and MOOT events

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Version	Date	Author	Description
			Changed <i>numberOfLegs</i> field from Required to Optional on MLCR, MLIC, MLICR, and MLCOC events
			Clarified reporting of paired orders including: (i) updated Section 3.7 Multi-Leg Option Orders and Paired Orders; (ii) changed pairedOrderID from Conditional to Optional on MEOR, MEOA, MOOA, and MLOA events; (iii) updated description of pairedOrderID; and (iv) replaced 'Electronic Paired Option Order' with 'Paired Option Order' in Appendix F: Glossary
			Added clearingFirm to MOOT event
			Added deptType to MLOA event
			Clarified <i>handlingInstructions</i> 'RAR' is applicable for external routes only
			Added conditional validation for LegDetails.openCloseIndicator, Error Code 2221
			Added conditional validations for buyDetails.side and sellDetails.side; Error Codes 2219 and 2220
			Added Section 7.5.1.7 Linkage Key Format
			Updated Appendix E: Error Codes to include references to new 2d events
			Removed allocationType value of 'AVP'
			Removed handlingInstructions value of 'LCE'
			Added handlingInstructions values of 'ERP', 'MAX' and 'PCS'
			Updated definition of handlingInstructions value 'OFF'
			Updated definition of <i>initiator</i> value 'C'
			Updated definition of <i>minQty</i>
			Updated definition of <i>handlingInstructions</i> values 'DLVT' and 'DLVF'
4.0.0 r12	12/20/2021	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Changes already deployed to Production as of 12/13/2021:
			Clarified that <i>netPrice</i> must be supplied in tied-to scenarios; added reference to FAQ B71
			Updated definition of <i>orderID</i> on MEMR, MOMR, MLMR, MECR, MOCR, and MLCR events
			Added note in Appendix E.3 regarding MOOT Named Errors
			Updated definition of cancelQty
			Updated definition of accountHolderType value 'E'
			Added handlingInstructions values of 'ALGS' and 'SLL'
			Added Prior Order Keys to MEOE and MOOE events
			Provided details in <u>Section 2.5</u> and <u>Section 6.1.2.2</u> regarding provision of non-required fields at the end of records in a CSV-formatted file
			Changes applicable in Release 1 (Expected Production date of 3/21/2022):
			Added <i>multiLegInd</i> field to MEMR, MECR, MEMRS, MECRS, MOMR, MOCR, MOMRS, and MOCRS events

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Version	Date	Author	Description
			Changed <i>clearingFirm</i> field from Optional to Required on MOOT event
			Changed <i>deptType</i> field from Optional to Required on MLOA event
			Added firmDesignatedID and accountHolderType to the Trade Side Details for the MEOTS event
			Changed <i>orderKeyDate</i> and <i>orderID</i> from Required to Conditional on the Trade Side Details for the MEOTS event
			Clarified the definition of <i>firmDetails.firmDesignatedID</i> on MEOF to indicate that it can be populated when <i>fulfillmentLinkType</i> is either 'YE' or 'YP'
			Added validation for <i>clearingFirm</i> format (Error Code 2222)
			Added validation for MEOF <i>firmDetails</i> invalid combination of <i>orderID</i> and <i>firmDesignatedID</i> (Error Code 2223)
			Updated definition of fulfillmentLinkType value 'YP'
			Changed data type of <i>handlingInstructions</i> value 'DLVT' to an Array
			Changes applicable in Release 3 (Expected Production date no earlier than Q4 2022):
			Added new Multi-Leg Order Effective (MLOE) event (to be implemented in late 2022)
4.0.0 r13	1/6/2022	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Provided additional details for the Name/Value Pair Data Type with respect to the 'DLVT' handlingInstructions
			Provided additional details on <i>orderKeyDate</i> and <i>orderID</i> on the MEOTS event Trade Side Details to align with the MEOT event Trade Side Details
			Moved <i>orderID</i> description change made in r12 from the MOOR event to the MOMR event (change was incorrectly applied to the MOOR event)
			Provided clarification on required provision of the multiLegInd on MEMR, MECR, MEMRS, MECRS, MOMR, MOCR, MOMRS, and MOCRS events
			Clarified details in <u>Section 6.1.2.2</u> regarding provision of non-required fields at the end of records in a CSV-formatted file; removed duplicate content from <u>Section 2.5</u>
4.0.0 r14	3/25/2022	Consolidated Audit Trail, LLC	Applicable Schema Version: 4.0.0
			Updated description of <i>underlying</i> on all Multi-Leg events; added <u>Section 2.4.5</u> to provide additional details
			Retired <i>TIDType</i> field from MEPA, MEAA, MOPA, and MOAA events; retired corresponding Error Code 2212; and removed term from Data Dictionary
			Added accountHolderType to MEPA, MEAA, MOPA, and MOAA events
			Clarified definition of DVPCustodianID on MEPA and

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Version	Date	Author	Description
			MEAA events and in the Data Dictionary
			Updated definition of price fields on Equity and Simple Option events (including <i>price</i> , <i>displayPrice</i> , <i>workingPrice</i> , <i>nbbPrice</i> , and <i>nboPrice</i>)
			Removed Data Ingestion Error Codes 2219 – 2220
			Added Data Ingestion Error Codes 2224 – 2226
			Added Intra-firm Error Codes 3701 – 3710
			Clarified definition of <i>side</i> in Data Dictionary
			Updated reference to FINRA Rule 4554, which has been retired, with new FINRA Rule number 6830(a)(1)(A)(xi)(c)
4.0.0 r15	5/16/2022	Consolidated Audit Trail, LLC	Updated Entity ID reference in Section 2.4.2 Firm Designated ID (FDID)
			Added Section 2.4.2.1 regarding FDID validation
			Updated <u>Section 2.4.5</u> to reflect future validation of the underlying field
			Updated description of <i>underlying</i> field on multi-leg events to remove indication that the field would be required beginning December 5, 2022
			Updated <u>Sections 7.5</u> , <u>7.5.1</u> , <u>7.5.2</u> , and <u>7.5.3</u> and added <u>Section 7.5.1.7</u> to reflect new Linkage Error Summary feedback file
			Updated <u>Section 8</u> to clarify generation of Named Errors in the Test Environment
			Clarified description of Error Code 3002
			Updated Error Codes 8003, 8004, 9003, and 9004 to reflect <i>routedQuoteID</i> and <i>receivedQuoteID</i> as applicable
			Added Warning 395 for FDID validation on an early reporting event
			Updated Warning 397 (Too Late to Link) which is being retired effective May 16, 2022
			Updated Data Dictionary definition of accountHolderType based on 4.0.0 r14
4.0.0 r16	7/29/2022	Consolidated Audit Trail, LLC	Conforming changes to use consistent terminology, time formats, capitalization, font, and text size throughout the document
			Updated representativeInd and fulfillmentLinkType fields values 'YE' and 'YP' throughout to reflect extension of exemptive relief from July 31, 2023 to July 31, 2024.
			Updated definition of Price data format in Section 2.5.1 to refer to FAQ I9 for foreign securities
			Updated language in Section 3.1.2 to refer to ATS accordingly
			Updated <i>cancelQty</i> from Conditional to Required on MEICR, MEOCR, MOICR, MOOCR, MLICR, and MLOCR events
			Updated multiLegInd from Conditional to Required on MEMR, MECR, MEMRS, MECRS, MOMR, MOCR, MOMRS, and MOCRS events
			Added deskOrderID to MEIC, MEICR, MEIM, MEIMR, MEIR, MOIC, MOICR, MOIM, MOIMR, MOIR, MLIC, MLICR, MLIM, MLIMR, and MLIR events

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Version	Date	Author	Description
			Added <i>priorDeskOrderID</i> to MEIM, MOIM, and MLIM events
			Removed language from Sections 4.5, 5.1.5, and 5.2.4 related to the provision of a unique Order ID for partial internal routes, which is being accomplished via the addition of deskOrderID and priorDeskOrderID
			Updated <i>tapeTradeID</i> from Conditional to Required on MOOT event
			Ungrayed MLOE event and related updates
			Updated Data Ingestion Error Code 2100
			Added Data Ingestion Error Codes 2227 – 2230
			Updated handlingInstruction 'CASH' from Boolean to Name/Value Pair
			Eliminate the Requirement for the Submission of a Metadata File paired with a Data File
			Updated Section 6, Section 7, and Appendix H to reflect:
			 Removal of requirements for the submission of a Metadata File
			 Elimination of Metadata File and Data File pairing integrity error codes
			 Indication that the metaFileName currently provided for Data Files in File Integrity Feedback and Data Ingestion Feedback will be null beginning December 5, 2022
			 Addition of totalRecordsCount for Data Ingestion Feedback files
			Updated Error Codes 1101, 1107, 1110-1116, 1121- 1127, and 2151
			Support Use of FINRA ADF
			Updated Section 2.6.3
			Updated MENQ event to change firmDesignatedID and accountHolderType from Required to Conditional
			Updated MENQ event to: add representativeQuoteInd, askAggregatedOrders, and bidAggregatedOrders
			Added New Quote Supplement (MENQS) event
			Updated MERQ event to: add destinationType and session; definition of destination; add session to Quote Route Key
			Added Quote Route Supplement (MERQS) event
			Updated Error Codes 2019 and 2093 to account for new destinationType value of 'D'
			Added new Error Codes 2231-2243 for validations on new MENQS and MERQS events
			Updated Data Dictionary to: update definition of destination; add destination value of 'ADF'; add destinationType value of 'D'; add other new terms in support of new and updated events
4.0.0 r17	8/24/2022	Consolidated Audit Trail, LLC	ADF changes made in version 4.0.0 r16 have been updated or grayed out to clarify that they will not be

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Version	Date	Author	Description
			effective until March 27, 2023, including:
			 Updated MENQ event to change firmDesignatedID and accountHolderType from Conditional to Required with note that field will become Conditional March 27, 2023
			 Grayed out content in <u>Section 2.6.3</u>; <u>Section 4</u> list of new Equity events; new fields on MENQ and MERQ events; new MENQS and MERQS events; related validations 2019, 2093, and 2231-2243; and ADF-related Data Dictionary updates
			Updated ADF-related language to refer to "Industry Member" rather than "ATS" specifically
4.0.0 r18	12/16/2022	Consolidated Audit Trail, LLC	Ungrayed ADF changes and associated Error Codes from version 4.0.0.r16 to reflect their effectiveness with version 4.0.0 r18
			Updated MENQ event to change firmDesignatedID and accountHolderType from Required to Conditional
			Added clarifications to <u>Section 2.4.2.1</u> for FDID Validation
			Added <i>side</i> to Exchange Trade Linkage Key for MEOT event
			Updated <u>Section 7.5.1.7</u> to reflect that the Linkage Error Summary File contains FDID validation errors and not rejections
			Updated <u>Section 7.6.4</u> File Deletion instructions to clarify the meta file is optional
			Updated Data Dictionary description of the <i>quantity</i> field to identify the use cases when it may be populated with a value of '0'
			Updated Error Code 3702 to include Event Date on allocation events
			Incorporated minor typographical and formatting errors throughout the document
4.0.0 r19	4/11/2023	Consolidated Audit Trail, LLC	Added Footnote to Table 1 Industry Specifications Phased Approach with reference to CAT Alert 2022-01 Added Footnote to Section 2.4.2.1 FDID Validations with reference to the Transaction Scope and Release Schedule
			Updated Table 3 with additional clarifications to rules regarding the Name/Value Pair Data Type, dependent on whether the attribute is Boolean or Non-Boolean. Made conforming updates to Name/Value pair language throughout specifications, including in Appendix G Data Dictionary.
			Added validations in Section 3.5.2 requiring the 'SW' and 'SWQ' handlingInstructions to be paired with Values greater than zero, and made conforming updates to Appendix G Data Dictionary
			Clarified reporting requirements in Section 5.2.8 regarding reporting a MLOS event once the FDID becomes available
			Clarified Rule 7 in Section 7.5 regarding full duplicates submitted outside the Processing Window
			Added validations requiring the 'CASH'

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Version	Date	Author	Description
			handlingInstructions to be paired with a Value greater than zero and 'DISP' handlingInstructions to be paired with a Value greater than or equal to zero in Appendix G Data Dictionary
			Updated <i>quantity</i> field definition in Appendix G Data Dictionary regarding timing for future validation related to cash orders.
			Updated description to Error Codes 2101 and 2036 description to include valid paired Value
			Elimination of Metadata File support
			Updated Section 6, Section 7 and Appendix H to reflect the elimination of Metadata File support. Effective July 24, 2023, if the Metadata file is submitted, it will be rejected at File Acknowledgement stage of Processing
			 Removed Metadata File Submission information from Table 3 Multi-Dimensional Array Data Type
			 Removed Metadata File-related feedback, including Metadata File Names, from JSON and CSV examples throughout Section 7 Feedback and Corrections, and in Appendices H.1 thru H.3
			 Removed Section 6.1.3 Metadata File Submission, including Table 130: Metadate File Submission Definition
			 Updated Table 134 Feedback and Error Correction Availability Table to reflect removal of Metadata File
			Updated Meta File Block fields in Sections in 7.2.1 File Acknowledgement Feedback Definition, 7.3.1 File Integrity Feedback Definition and 7.4 Ingestion Feedback Definition to mirror Linkage Discovery Feedback definitions
			 Removed Type Field Name from Table 137 Elements of Meta Feedback File Name Generated during Acknowledgement, File Integrity and Data Ingestion
			 Removed Table 129: Filename / Base Name Examples, regarding duplicate Metadata File Names, from Section 6.1.1 File Submission Names
			Removed Metadata references from Section 7.6.4 File Deletion instructions
			 Retired Error Codes 1101, 1105, 1106, 1107, 1110, 1111, 1112, 1115, 1116, 1121, 1122, 1123, 1124, 1126, 1127 and 2151, which were associated Metadata files and pairing with the Data files (effective December 5, 2022)
			 Removed Table 178: File Integrity Error of Metadata File with Multiple Blocks from Appendix H.2: File Feedback (JSON)
			Removed Metadata-related Feedback from various feedback examples

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Version	Date	Author	Description
			Clarified Data File submission rules and requirements
			Coinciding with the elimination of Metadata File support, the following Data File rules were updated:
			 Clarified in Section 6.1.4 Data File Submission that Data Files are processed independently
			 Clarified in Section 6.1.4 that the processing date of all submissions will be assigned based on the received timestamp of the Data File
			 Clarified in Section 6.1.5.1 Schema Version that Data File submissions must be formatted based on the schema of the applicable Environment
			Removed applicable references to Metadata File
			Updated various feedback examples, including with valid Error Codes
			Support Use of FINRA ADF
			 Added in Sections 4.10, 4.10.1 and 4.10.3 that Quotes are also used to report quotes in NMS Securities for displaying on a Display-Only Facility
			 Added guidance in Sections 4.10.1 and 4.10.3 on populating the unpricedInd field on MENQ and MERQ events when a two-sided quote is generated to cancel and clear an existing quotation on a Display-Only Facility, and made conforming updates to Appendix G Data Dictionary
			 Updated MENQ event to change the unsolicitedInd field from required to conditional and updated description that the field must be blank when the representativeQuoteInd is populated
			 Clarified in Section 4.10.1 that the representativeQuoteInd, askAggregatedOrders, and bidAggregatedOrders fields on the MENQ event are required only when an Industry Member is generating quotes and displaying them on a Display-Only Facility
			 Clarified in Section 4.10.3 that the destinationType and session fields on MERQ events are required only when an Industry Member is generating quotes and displaying them on a Display-Only Facility
			 Clarified in Sections 4.10.2 and 4.10.4 that the MENQS and MERQS events are required only when an Industry Member is generating quotes and displaying them on a Display-only Facility
			Updated Name of Table 148 to include Display- Only Facility Equity BBO events, and that the errorType of ERREX applies to Display-Only Facility Feedback

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Version	Date	Author	Description
			 Added Error Codes 2244, 2245 and 2246
			 Updated Linkage Error Codes 6003, 6005, 6007, 6009, 6011, 6013, 6017, 7004, 7006, 7008, 7010, 7012 and 7018 to incorporate Routed Quote events and Display-Only Facility Equity BBO Events
4.0.0 r20	7/31/2023	Consolidated Audit Trail, LLC	
			Added reference to RFQ Platforms in the Quote

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Version	Date	Author	Description
			Route Key
			 Updated section 4.10 through 4.10.7 to include the reporting of quotes in electronic RFQ responses
			 Added RFQID, RFQFlag, relativePrice fields in MENQ, MERQ, MEQR, and MEQM events
			 Added guidance on how to populate the relativePrice and RFQFlag on the MENQ, MERQ, MEQR, and MEQM events
			 Updated 4.10.5 to Quote Received/Replace Event
			 Added RFQID to the MEQC event
			 Added 'IDSQ / ADF Only Field' language to specific fields in the MENQ, MERQ, MEQR, and MEQM events
			 Updated Table 60: Summary of Simple Option Events to include new MONQ, MORQ, MOQR, MOQC, MOQM quote events
			 Updated Table 61: Summary of Multi-Leg Option Events to include new MLNQ, MLRQ, MLQR, MLQS, MLQC, and MLQM Multi-Leg quote events
			 Added new section 5.1.10 Option Quotes
			 Added new sections 5.1.10.1 through 5.1.10.5 covering new Option Quote events
			 Added new section 5.2.8 Multi-Leg Quotes
			 Added new section 5.2.8.1 through 5.2.8.6 covering new Multi-Leg Quote events
			 Updated section 7.5.1.4 Linkage Error Feedback to include reference to RFQ Platform
			 Updated Table 161: Linkage Errors – Named on Unlinked Industry Member Quote event sequence 6 to include optionID
			 Updated Error Code 2019 to include destinationType = S
			 Added Error Codes 2248, 2249, 2250, 2251 for Missing or Invalid RFQID, RFQFlag, quotePriceType, and relativePrice
			 Added Error Code 2252 for Invalid Combination of destinationType and RFQFlag
			 Updated Appendix F: Glossary to include new added quote events in the Primary Event and Secondary Events section
			 Updated destinationType in the Appendix G: Data Dictionary to include Allowed Values for Quote Events
			 Added quotePriceType, relativePrice, and RFQFlag in the Data Dictionary
			 Added the Options and Multi-Leg Quote events in the type field name in the Appendix G: Data Dictionary
			 Renumbered the Table #s to reflect the new

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Version	Date	Author	Description
			added tables
4.1.0	11/30/2023	Consolidated Audit Trail, LLC	Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024)
			Applicable Schema Version: 4.1.0
			Ungrayed RFQ changes and associated Data Dictionary fields and Error Codes from version 4.0.0.r20 to reflect their effectiveness with version 4.1.0 beginning August 1, 2024
			 Added validUntilDuration field to MENQ, MERQ, MEQR, MONQ, MORQ, MOQR, MLNQ, MLRQ, and MLQR events
			 Clarified in New Order event that RFQID field is also applicable when an order is being generated following the selection by a solicitor of a winning responder of an RFQ.
			 Updated the quote linkage keys and the description for quoteID field for Section 5.2.8.3
			 Removed 'D' from the destinationType Data Dictionary as an allowed values for Order Events
			Bifurcated <i>relativePrice</i> field to bidRelativePrice / askRelativePrice name/value pairs data type to allow reporting of multiple price benchmarks on quote events
			 Clarified which type of RFQ responses or activities not reportable in Phases 2c/2d in Section 3.4.1
			 Added senderType to MEQR, MOQR, and MLQR events
			 Updated the description of the receivedQuoteID field in the Data Dictionary to the applicable routed quote events
			Updated Section 7.5.1.4 Linkage Error Feedback to include linkage errors for electronic RFQ responses
			 Updated Error Code 2251 to Invalid bidRelativePrice / askRelativePrice
			 Added Error Code 2253 for Invalid combination of bidRelativePrice / askRelativePrice
			 Clarified the description for unpricedInd in MENQ, MERQ, MEQR, and MEQM events
			 Updated Error Code 2045 and all applicable events to remove the minQty field requirement that values must be greater than zero
			Handling Instructions Update (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – April 29, 2024)
			 Updated the Data Dictionary description for 'IDX' for retirement and 'AOK' must be paired with 'AUC' or 'AucResp' handlingInstructions.
			Added new 'AUC', 'APCL', and 'APCM'

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to reflect extension of exemptive reflief from July 31, 2023 to July 31, 2026. Updated Section 2.3.2 Order Handling Instructions and Appendix G: Data Dictionary to reflect the Commission's Exemptive Relief Order (Release No. 34-98848) from the requirements as applied to port-level settings and Industry Member reporting obligations when routing orders over an exchange port that is configured for certain handlingInstructions values and identified the specific handlingInstructions values. Removed references to Third Party Reporting Agent authorization due to elimination of Metadata File support in Sections 2.2.1: Firm Identifiers and 7:3 File Integrity Corrected Linkage Keys in Section 5.1.11: Option Trade Event. Added FAQ references to 'AOK' handlingInstructions value description Corrected 'GTC' timeInForce value as Boolean Value in Appendix G: Data Dictionary Auction-Related Handling Instructions (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – July 1, 2024) • Updated the Data Dictionary descriptions for	Version	Date	Author	Description
Audit Trail, LLC Examples for Linkage Discovery Feedback by removing an unintended comma in the Error Summary File Contents sample and Error Data Feedback File Contents sample Updated description of Real Quantity Data Type in Table 3: Data Types to reflect that trailing zeroes are not rejected Updated and clarified Section 2.4.2.1 FDID Validation regarding validations and deployment to Production environment Updated representative Ind and fulfillmentLinkType fields values "YE" and "YP throughout to reflect extension of exemptive relief from July 31, 2024 to January 31, 2025. Updated applicable date references for manual/verbal responses for RFQs and the activity becoming reportable to reflect extension of exemptive relief from July 31, 2023 to July 31, 2026. Updated Section 2.3.2 Order Handling Instructions and Appendix G: Data Dictionary to reflect the Commission's Exemptive Relief Order (Release No. 34-98848) from the requirements as applied to port-level settings and Industry Member reporting obligations when routing orders over an exchange port that is configured for certain handling/instructions values and identified the specific handling/instructions values and indentified the specific handling/instructions values and respectively. Removed references to Third Party Reporting Agent authorization due to elimination of Metadata File support in Sections 2.2.1: Firm Identifiers and 7:3 File Integrity Corrected Linkage Keys in Section 5.1.11: Option Trade Event. Added FAQ references to "AOK" handling/instructions value description Corrected "GTC" timeInForce value as Boolean Value in Appendix G: Data Dictionary descriptions for "AUC", "APCL" and "APCM" handling/instructions values in Appendix G: Data Dictionary descriptions for "AUC", "APCL" and "APCM" handling/instructions values is July 1, 2024. Updated the Data Dictionary descriptions for "AUC", "APCL" and "APCM" handling/instructions values is July 1, 2024. CAT, LLC will submit an exemptive relief request to the SEC to include "AUC" and "AOC" in the				handlingInstructions values.
Audit Trail, LLC 3. Data Types to reflect that trailing zeroes are not rejected Updated and clarified Section 2.4.2.1 FDID Validation regarding validations and deployment to Production environment Updated representativeInd and fulfillmentLinkType fields values 'YE' and 'YP' throughout to reflect extension of exemptive relief from July 31, 2024 to January 31, 2025. Updated applicable date references for manual/verbal responses for RFQs and the activity becoming reportable to reflect extension of exemptive relief from July 31, 2023. Updated Section 2.3.2 Order Handling Instructions and Appendix G: Data Dictionary to reflect the Commission's Exemptive Relief Order (Release No. 34-98848) from the requirements as applied to port-level settings and Industry Member reporting obligations when routing orders over an exchange port that is configured for certain handlingInstructions values and identified the specific handlingInstructions values and identified the specific handlingInstructions values. Removed references to Third Party Reporting Agent authorization due to elimination of Metadata File support in Sections 2.1: Firm Identifiers and 7:3 File integrity Corrected Linkage Keys in Section 5.1.11: Option Trade Event. Added FAQ references to 'AOK' handlingInstructions value description Corrected 'GTC' timeInForce value as Boolean Value in Appendix G: Data Dictionary Auction-Related Handling Instructions (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – July 1, 2024) • Updated the Data Dictionary descriptions for 'AUC', 'APCL', and 'APCM' handlingInstructions values. The compliance date for reporting the instructions that are communicated over an exchange port configured for 'AUC', 'APCL' and 'APCM' handlingInstructions values. The compliance date for reporting the instructions value active relief request to the SEC to include 'AUC' and 'APCM' in the list of Exempted Port-Level Settings that the Commission identified in the November 2,	4.1.0 r1	1/26/2024	-	Examples for Linkage Discovery Feedback by removing an unintended comma in the Error Summary File Contents sample and Error Data Feedback File Contents
	4.1.0 r2	3/28/2024		Updated description of Real Quantity Data Type in Table 3: Data Types to reflect that trailing zeroes are not rejected Updated and clarified Section 2.4.2.1 FDID Validation regarding validations and deployment to Production environment Updated representativeInd and fulfillmentLinkType fields values 'YE' and 'YP' throughout to reflect extension of exemptive relief from July 31, 2024 to January 31, 2025. Updated applicable date references for manual/verbal responses for RFQs and the activity becoming reportable to reflect extension of exemptive relief from July 31, 2023 to July 31, 2026. Updated Section 2.3.2 Order Handling Instructions and Appendix G: Data Dictionary to reflect the Commission's Exemptive Relief Order (Release No. 34-98848) from the requirements as applied to port-level settings and Industry Member reporting obligations when routing orders over an exchange port that is configured for certain handlingInstructions values and identified the specific handlingInstructions values. Removed references to Third Party Reporting Agent authorization due to elimination of Metadata File support in Sections 2.2.1: Firm Identifiers and 7:3 File Integrity Corrected Linkage Keys in Section 5.1.11: Option Trade Event. Added FAQ references to 'AOK' handlingInstructions value description Corrected 'GTC' timeInForce value as Boolean Value in Appendix G: Data Dictionary Auction-Related Handling Instructions (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – July 1, 2024) • Updated the Data Dictionary descriptions for 'AUC', 'APCL', and 'APCM' handlingInstructions values. The compliance date for reporting the instructions that are communicated over an exchange port configured for 'AUC', 'APCL' and 'APCM' handlingInstructions values is July 1, 2024, CAT, LLC will submit an exemptive relief request to the SEC to include 'AUC' and 'AOK' in the list of Exempted Port-Level Settings that the Commission identified in the November 2,

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Version	Date	Author	Description
			-July 1, 2024, Compliance Date for CAT Reporting - July 1, 2024)
			 Rescheduled removal of 'IDX' handlingInstructions value
			Added new 'PCTPX' handlingInstructions value
			Added Section 3.9: Percentage-Based Prices
			 Removed existing reference to FLEXPCT options from <i>price</i> field description on applicable events
			Retirement of Next Day Handling Instruction and New Error Codes for Trade Events and Internalized Trades (Industry Test – May 13, 2024, Production – July 29, 2024; Compliance Date for CAT Reporting – July 29, 2024)
			 Removed 'ND' handlingInstructions value to support change to T+1 settlement effective May 28, 2024. Industry Members are not expected to report 'ND' when T+1 becomes the new settlement standard on May 28, 2024 but may optionally continue to report 'ND' until July 29, 2024.
			 The Industry Member compliance date to discontinue use of 'ND' in CAT reporting is July 29, 2024.
			 Updated Section 4.11: Trade that capacity of 'P' must be reported when the firm is internalizing a trade. Updated capacity and firmDesignatedID field descriptions on MEOT and MOOT events that capacity of 'P' must be reported when Industry Member is reporting an internalized trade.
			Added Error Codes 2258 and 2259.
			Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024)
			 Updated Name of Section 2.6.3.4: Routing to Foreign Destinations and U.S. non-CAT Reporting Entities and included information on how destinationType and senderType values of 'N' or 'S' on quote events will be used to suppress linkage.
			 Added information to Section 3.4.1: Scope regarding February 13, 2024 exemptive relief request associated with requirements to report responses to requests for quotes (RFQs) provided in standard electronic format (e.g., FIX) that are not "immediately actionable", to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8)
			 Corrected Linkage Keys in Sections 5.1.10.4 and 5.2.8.4
			Corrected Sequence numbers in Table 129: Leg Details

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Version	Date	Author	Description
			 Corrected the bidRelativePrice field data type on MERQ event to Name/Value Pairs
			 Corrected field description references to bidRelativePrice and askRelativePrice fields on the bidPrice and askPrice fields on MONQ, MORQ, MOQR and MOQM events
			 Clarified destinationType description on MORQ and MLRQ events
			 Clarified descriptions of initiator, manualFlag and electronicTimestamp fields on MEQC event
			 Removed Exchange ID Data Type reference from the senderIMID field data type on MOQM and MLQM events
			 Updated senderType description on MEQR event.
			 Updated the descriptions to the bidRelativePrice and askRelativePrice fields on applicable events and in Appendix G: Data Dictionary
			 Updated description and clarified requirements of unsolicitedInd field description on MENQ, MEQR and MEQM events
			 Updated description and clarified requirements of unpricedInd field on MENQ, MERQ, MEQR and MEQM events
			 Updated descriptions and requirements that the RFQFlag must be 'true' when RFQID field is populated, and that the RFQID field must be populated when the RFQFlag is 'true' on the MENQ event
			 Changed the validUntilDuration field from Numeric (4, 6) to Real Quantity data type and clarified the description on applicable events and in Appendix G: Data Dictionary
			 Changed RFQID field from required to conditional on MEQM event
			 Changed quotePriceType field from required to conditional on MLNQ event
			 Changed destination field from required to conditional on MERQ, MORQ and MLRQ events, and updated description on when field not required on these events as well as MLQS event. Updated language in Error Code 2019.
			 Changed senderIMID from required to conditional and updated description on MEQR, MOQR, MLQR and updated description on when field not required
			 Changed destinationType from conditional to required on MORQ and MLRQ events
			 Retired position 10 from MLQC event.
			 Retired Error Codes 2248, 2251 - 2253
			 Added Error Codes 2254 – 2257 for enhanced feedback

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Version	Date	Author	Description
			Support Use of Sapphire Options Exchange (Pending Approval) (Industry Test – June 24, 2024, Production – August 12. 2024)
			 Added MIAX Sapphire Options Exchange ('SPHR') to destination, marketID, and senderIMID (Pending SEC Approval)
4.1.0 r3	7/24/2024	Consolidated Audit Trail, LLC	Updated Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024) to reflect Granting of Temporary Conditional Exemptive Relief
			 Updated Footnote to Section 3.4: Scope noting that the SEC announced an order Granting a Temporary Conditional Exemption Relating to the Reporting of Responses to Requests for Quotes and Other Solicitation Responses Provided in a Standard Electronic Format that is not "immediately actionable" (i.e., further action is required by the responder providing the quote in order to execute or cause a trade to be executed) ("NIA Electronic RFQ Responses"), to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8), from August 1, 2024 to August 1, 2026 Added information to Section 4.10: Quotes regarding the May 20, 2024 exemptive relief announcement granted by the SEC with regards to requirements to report responses to requests for quotes (RFQs) provided in standard electronic format (e.g., FIX) that are not "immediately actionable", to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8), from August 1, 2024 to August 1, 2026.
			Updated field definitions of askRelativePrice, bidRelativePrice, RFQFlag and validUntilDuration on applicable equity quote events
			 Added language to all Option and Multi-Leg Quote event sections.
			 Added information to Section 7.5: Linkage Discovery for Intrafirm Linkage and Interfirm Linkage of responses to requests for quotes (RFQs) provided in standard electronic format (e.g., FIX) that are not "immediately actionable".
			Sapphire Options Exchange (Industry Test – June 24, 2024, Production – August 12. 2024)
			 Removed the 'Pending SEC Approval' text for SPHR: MIAX Sapphire Options Exchange in destination, marketCenterID, and senderIMID fields
4.1.0 r4	10/18/2024	Consolidated Audit Trail, LLC	Clarify description of Boolean Data Type in Table 3: Data Types when field is optional, conditional or required
		, == -	Update the description of 'BIN' handlingInstructions value in Appendix G: Data Dictionary
			Update <i>feedbackVersion</i> in various examples

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Version	Date	Author	Description
			Second Quarter Release (Industry Test – January 27, 2025, Production – April 14, 2025) Retire the 'MAO', 'MAC', 'AOB' and 'MOB' handlingInstructions values Add Boolean BFMMFlag as conditional field on MENO, MEOM, MEOT, and MEOTS events Added Error Codes 2260, 2261 and 2262 This reporting supports the SEC's requirement to report reliance on the bona fide market making exception in Regulation SHO, in connection with the SEC's issuance of Release No. 34-98738. The compliance date for this reporting is July 1, 2025.
4.1.0 r5	1/22/2025	Consolidated Audit Trail, LLC	 Updated representativeInd and fulfillmentLinkType fields values 'YE' and 'YP' throughout to reflect extension of exemptive relief from January 31, 2025 to July 31, 2025. Retire Interfirm Linkage Warning Code 897 associated to early reported event. Incorporated minor typographical and formatting errors throughout the document.

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1. Introduction

1.1. CAT Overview

The Securities and Exchange Commission (SEC) approved Rule 613 under the Securities Exchange Act of 1934, which requires national securities exchanges and national securities associations (collectively, the Participants) to submit a national market system plan to create, implement, and maintain a consolidated audit trail (CAT NMS Plan) that would capture customer and order event information for orders in NMS Securities and OTC Equity Securities (Eligible Securities), across all markets, from the time of order inception through routing, cancellation, modification, execution, and allocation. The SEC approved the CAT NMS Plan on November 15, 2016.

In accordance with SEC Rule 613, the CAT NMS Plan requires a Central Repository that will comprehensively track orders throughout their lifecycle and identify the Participants and Industry Members handling them, as well as the account holders and authorized traders for any account that originates an order (Customers³). Specific data elements will be submitted to the Central Repository by Participants, Industry Members, and CAT Reporting Agents. CAT Reporting Agents may be third-party firms reporting on behalf of other entities, or may be outside parties that are not required to submit data to the CAT, but from which the CAT may receive data per the CAT NMS Plan, such as the Securities Information Processors (SIPs).

The CAT NMS Plan also requires the selection of an entity as the Plan Processor to be responsible for performing the processing functions required by Rule 613 and the Plan. The Operating Committee of Consolidated Audit Trail, LLC, a governing body composed of representatives of the Participants, oversees the operation of the CAT. The duties of the Operating Committee are further described in Article IV of the CAT NMS Plan.

Refer to SEC Rule 613, available at: https://www.sec.gov/rules/final/2012/34-67457.pdf for more details. Refer also to CAT NMS Plan, available at: https://www.catnmsplan.com/about-cat/cat-nms-plan.

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³ Customers are defined in SEC Rule 613(j)(3) as: (i) the account holder(s) of the account at a registered broker-dealer originating the order; and (ii) any person from whom the broker-dealer is authorized to accept trading instructions for such account, if different from the account holder(s).

1.2. Registration

Industry Members are required to register for the CAT NMS System by June 27, 2019 regardless of what phase they begin reporting. Third Party Transmitters are also required to register for the CAT NMS System prior to submission.

The <u>Registration Form</u> is available on the CAT Public Website, along with additional information on the registration process. Contact <u>help@finracat.com</u> for any questions regarding the registration process.

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2. CAT Reporting Fundamentals

2.1. Industry Member Perspective

Industry Members must populate fields from their perspective. For example, for "capacity", the Industry Member must report based on the capacity in which the Industry Member acted. For New Order and Order Accepted events, reports must indicate the instructions as received. For an Order Route, the fields must include the instructions as sent to the destination.

2.2. Key Data Elements

The sections below describe the key data elements of CAT that may be used in CAT events.

2.2.1. Firm Identifiers in File Submissions

The CAT submissions process relies on certain firm identifiers to determine whose data is being reported, to determine and verify the authorization of the submitter of the data.

CAT Reporter IMID

The CAT Reporter IMID is the SRO-assigned identifier that an Industry Member uses to report to CAT. A CAT Reporter may use any SRO-assigned identifier that is valid on the CAT Trading Day for which CAT events are submitted. CAT will use reference data submitted by Participant Reporters each day to identify the Industry Member to which the specific identifier is assigned. Each SRO-assigned identifier is linked to the Industry Member's CRD number so that all reporting activity of a single Industry Member CAT reporter can be consolidated at the firm level in CAT. Refer to Section 2.4.1.1 for additional information on populating the CAT Reporter IMID.

CAT Submitter ID

The CAT Submitter ID is a CAT assigned identifier for a firm that submits data to CAT. The Submitter ID uniquely identifies the Submitter and is not the same identifier as the CAT Reporter IMID. CAT Reporters may submit data for themselves or may authorize a Reporting Agent to report on the CAT Reporter's behalf.

Authorization between CAT Reporters, Submitter and CAT Reporting Agents is granted through a reporting relationship that will be entered by the CAT Reporter using the CAT Reporter Portal. When a file is received, CAT will verify that the CAT Reporter has authorized the Submitter to submit on their behalf.

If the Submitter is an Industry Member, the CAT Submitter ID is the Submitter's CRD number. If the Submitter is not an Industry Member and does not have a CRD number (i.e., Service Bureaus), the CAT Submitter ID is the Submitter's Organization ID. Service bureaus may contact the FINRA CAT Helpdesk to obtain their Organization ID.

2.3. Order ID

The order ID used in CAT events represents the internal order ID assigned by the Industry Member. The order ID is used as a Linkage Key and must be unique when combined with the *orderKeyDate*, *CATReporterIMID* and *symbol* (or *optionID*). Other key linkage fields are fully described in <u>Section 2.6.1</u>.

2.3.1. Timestamps

Each Industry Member must record and report Industry Member Data captured in an electronic system to CAT with timestamps in milliseconds. CAT will accept granularity up to nanoseconds. To the extent that any Industry Member's order handling or execution systems utilize timestamps in increments finer than milliseconds, the Industry Member must truncate its timestamps after the nanosecond level. Refer to CAT FAQs B2 and B8 for additional information.

Each Industry Member may record and report Manual CAT events in increments up to and including one second, provided that each Industry Member records and reports the time when a Manual CAT Event has been captured electronically in an order handling and execution system of such Industry Member ("Electronic Capture Time") in milliseconds. Allocation Reports must be reported in increments up to and including one second.

Each CAT event contains both an eventTimestamp and electronicTimestamp. The eventTimestamp is the time of order handling or execution pursuant to Section 6.8 of the CAT NMS Plan (e.g. origination, receipt) depending on the respective order event. For manual order handling, eventTimestamp is the manual handling or execution time, which is required to be reported in increments of at least one second. When the manual order is later captured electronically, the systematized time must be captured in the electronicTimestamp field.

2.3.2. Order Handling Instructions

Special handling instructions are reported in the *handlingInstructions* field using a standardized list of handling instruction codes. Multiple handling instruction values can be used in combination to report special handling instructions. Refer to Appendix G: Data Dictionary

Industry Members are required to report *handlingInstructions* on Order Route events. In the event an Industry Member routes an order externally with exactly the same handling instructions received from the customer/client, they may use *handlingInstructions* value 'RAR' (Routed as Received) on the Order Route event rather than re-stating all *handlingInstructions* values from the New Order/Order Accepted event.

In accordance with the November 2, 2023 SEC exemptive Relief Order (Release No. 34-98848), Industry Members are not required to report the following six special handling instructions when an Industry Member routes an order to at exchanges over an exchange port that is configured for one of the special handling instructions:⁴

- ATT Attributable. Order is routed to an exchange or ATS with instructions that the order is attributable
- 2. DNI Do Not Increase
- 3. **DNR** Do Not Reduce
- 4. **DNRT** Do Not Route
- 5. **RLO** Retail Liquidity Order
- 6. **STP** Self Trade Prevention

This exception is exclusively with respect to Industry Member reporting obligations when routing orders over an exchange port that is configured for one of these special handling instructions. CAT, LLC will submit an exemptive relief request to the SEC to include 'AUC' and 'AOK' in the list of Exempted Port-Level Settings.

2.3.3. Firm ROE ID

The Firm ROE ID is the internal identifier assigned by the Industry Member to uniquely represent a record in CAT. The *firmROEID* is present on every CAT event and is used to support the corrections process.

⁴ See Securities Exchange Act Release No. 34-98848 "Order Granting Conditional Exemptive Relief, Pursuant to Section 36(a)(1) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 608(e) of Regulation NMS under the Exchange Act, from Certain Requirements of the National Market System Plan Governing the Consolidated Audit Trail" (November 2, 2023). https://catnmsplan.com/sites/default/files/2023-11/11.02.23-SEC-Granting-Exemptive-Relief-of-Certain-Requirements-of-the-CAT-NMS-Plan.pdf.

The *firmROEID* must be unique for the Event Date and CAT Reporter IMID and is required to be formatted as follows: <Event Date>_<firm ROE Identifier>. This requirement applies to CAT Reporters that use multiple Submitters. An example of a *firmROEID* is: 20190429 323134567.

Event Date must represent the date portion of the *eventTimestamp* reported in the record. The inclusion of the event date provides processing efficiency for the corrections process by allowing the CAT Processor an efficient mechanism to locate the record being corrected.

Refer to <u>Section 7.6</u> for more information on the corrections process.

2.3.4. Error ROE ID

The Error ROE ID is the identifier assigned by CAT to uniquely identify an error record. The *errorROEID* is returned with error feedback to provide a mechanism for firms to repair errors generated during processing. When firms are submitting corrections to CAT that represent a repair of an error, the *errorROEID* provides an efficient mechanism to locate the error record being repaired.

Refer to Section 7.6 for more information on the corrections process.

2.4. Reference Data

2.4.1. Industry Member Identifiers

An Industry Member Identifier is any identifier assigned by an SRO to one of its members. Examples of SRO-assigned identifiers include FINRA MPIDs, Nasdaq MPIDs, NYSE Mnemonics, Cboe EFIDs, and CHX Acronyms. Most Industry Members have multiple IMIDs. The following sections will provide guidance on which IMID to use for various fields and reporting circumstances.

2.4.1.1. IMID in the CATReporterIMID field

Populated in file names and optionally on CAT Events, the *CATReporterIMID* identifies the Industry Member whose data is represented in the CAT Event. The *CATReporterIMID* is populated with the SRO-assigned identifier used to report to CAT. The *CATReporterIMID* is used to consolidate activity occurring both within the *CATReporterIMID* and at the firm (CRD) level. It also participates in the Linkage Keys used for Intrafirm Linkage and TRF Linkage. The *CATReporterIMID* does not participate in the Linkage Keys for Interfirm Linkage.

The *CATReporterIMID* is populated with the SRO-assigned identifier used to report to CAT according to the following requirements:

- 1. FINRA members must populate the CAT Reporter IMID with the same MPID that it uses for related trade reporting facility (TRF) trade reporting, or, for quoting on an interdealer quotation system.
- 2. FINRA members that operate an alternative trading system (ATS) must use their FINRA ATS MPID.
- 3. If there is no ATS, TRF or quoting MPID requirement, any valid FINRA MPID may be populated.
- 4. Non-FINRA members may use any effective identifier of the firm as included in the Daily published Member Dictionary, as described in the CAT Reporting Technical Specifications for Plan Participants.
- When a CAT Reporter routes between different IMIDs of the same firm (same CRD), the CAT Reporter IMID may **not** be populated with the same value on the Order Route and Order Accepted events.
- 6. The *CATReporterIMID* populated in the Data File name and in the CAT event (if populated) must be equal, otherwise the record will be rejected.

2.4.1.2. IMID on Routing Events in the senderIMID, receiverIMID and destination Fields

IMIDs are populated in Order Accepted, Order Route, New Quote and Quote Received events with the Industry Member identifier used when routing between venues. This identifier is known to both parties and is required to be populated in the *senderIMID*, *receiverIMID* and *destination* fields where applicable.

The IMID participates in the Linkage Keys used for Interfirm Linkage and Exchange Linkage. When the same Industry Member Identifier (IMID) is assigned by different SROs to represent different Industry Members, an IMID conflict is created. To avoid conflicts, to simplify the population of the Industry Member Identifiers, and to streamline linkage processing, CAT reporters must populate the *senderIMID*, *receiverIMID* and *destination* (when routing to an IM) fields with both the CRD and IMID, formatted as <CRD of the CAT Reporter>:<IMID of the Industry Member performing the action in the CAT event>. The Industry Member ID must include the identifier that is known by the routing firm and destination venue. For example: CRD 123, IMID ABC is formatted as 123:ABC.

The IMID provided in the *senderIMID*, *receiverIMID* and *destination* fields can be different than the CAT Reporter IMID. For example, CAT Reporter ABCD (CRD 123) may use FRMA as its CAT Reporter IMID, but when routing to Exchange A, it uses the exchange assigned identifier ABC. In this scenario, on its Order Route event, Firm A would populate its identifier in the CAT Reporter IMID field as FRMA and its identifier in the *senderIMID* field as 123:ABC.

For orders received from or routed to an alternative trading system (ATS), the FINRA ATS MPID must be used. FINRA members must use the same MPID for CAT reporting that it uses for related trade reporting

facility (TRF) trade reporting, or, for quoting on an interdealer quotation system. If there is no ATS, TRF or quoting MPID requirement, firms may agree to use any valid FINRA MPID when routing to or receiving from another FINRA member, as long as both CAT Reporters use the same MPID as the IMID. Routing identifiers representing FINRA members are populated as: <FINRA Member CRD>:<FINRA Member MPID>.

For orders received from or routed to a non-FINRA member firm, firms must agree to use the same IMID when reporting events to CAT. Non-FINRA members may use any effective identifier of the firm. Routing identifiers representing non-FINRA members are populated as: <non-FINRA Member CRD>:<non-FINRA Member MPID>.

For orders routed to or received from an exchange, CAT reporters must populate the IMID with both the CRD and exchange assigned identifier used in the order route message to the exchange, formatted as <CRD>:<exchange assigned identifier>.

Refer to <u>Section 2.6.3.1</u> for additional information on how IMIDs participate in linkage.

2.4.1.3. Default IMIDs

The Plan Processor will publish each day a list of all SRO-assigned identifiers that includes a designated default IMID. The default IMID is selected by each CAT Reporter when they register as a CAT Reporter. The published default IMID must only be used if two parties do not have a pre-determined agreement as to which IMID to use when routing between each other. However, the default IMID is not intended to replace communication between the sender and receiver.

Routing identifiers populated using a default IMID are populated as: <default IMID CRD>:<default IMID>.

Example: A non-FINRA member firm (CRD 999) has a Cboe-assigned option identifier and a NYSE-assigned equity identifier, as follows:

- Cboe-assigned options ID BDAO
- NYSE-assigned equity ID BDA (default IMID)

In this example, when a second firm receives an order from the above firm, and the second firm does not have an agreement with the above firm as to which IMID to use, IMID BDA should be used to avoid a linkage error. The routing identifier is populated as 999:BDA.

2.4.2. Firm Designated ID (FDID)

Section 6.4 of the CAT NMS Plan requires that for the original receipt or origination of an order, Industry Members must report the Firm Designated ID (FDID). FDID is defined in Section 1.1 of the CAT NMS Plan as:

"...(1) a unique and persistent identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository provided, however, such identifier may not be the account number for such trading account if the trading account is not a proprietary account; (2) a unique and persistent relationship identifier when an Industry Member does not have an account number available to its order handling and/or execution system at the time of order receipt, provided, however, such identifier must be masked; or (3) a unique and persistent entity identifier when an employee of an Industry Member is exercising discretion over multiple client accounts and creates an aggregated order for which a trading account number of the Industry Member is not available at the time of order origination, where each such identifier is unique among all identifiers from any given Industry Member."

Before the reporting of Full Customer Account Information and Customer Identifying Information begins, regulatory users of the CAT will use FDIDs to identify whether the same account is trading within a single broker-dealer. After the reporting of Full Customer Account Information and Customer Identifying Information begins, FDIDs will be used to link accounts to specific customers, including mapping accounts with common ownership (for instance, where a customer is associated with more than one FDID). Therefore, FDID is required to be populated on all Transaction Order events requiring FDID for both equities and options.

Industry Members must assign a single FDID to each trading account that is unique, persistent and consistent within the firm and across all vendors and systems the Industry Member may use to report Transaction Order events requiring an FDID to CAT and associated Customer and Account information for the FDID to CAT CAIS, and unique across time. For example, if an Industry Member uses multiple vendors for reporting Transaction data to CAT, the Industry Member must ensure that all vendors use the same FDID for a particular trading account in all CAT Transaction Order events requiring an FDID, and that the same FDID associated with the trading account is submitted to the Customer and Account Information System.

Examples of what an FDID would represent include:

- Individual Customer Account Number
- Institutional Customer Account Number

- Account Number of Average Price Account Designated for a Specific Customer (e.g., Master Account or agency Representative Order scenarios)
- Account Number of Firm Average Price Account Shared Across Customers (e.g., Master Account, Account Used for Agency Representative Order Flows)
- Proprietary Trading Account Number
- Firm assigned identifier representing a trading relationship (Relationship ID) can be used when the trading account structure is unavailable at the time the order was placed
- Industry Member assigned identifier (Entity ID) representing the Industry Member's discretionary
 relationship with the client when an employee of the Industry Member is exercising discretion
 over multiple client accounts and creates an aggregated order for which a trading account
 number of the Industry Member is unavailable at the time of order origination

An actual customer account number must not be used as the FDID for a customer account for CAT reporting and the same guidance would apply to an FDID representing a Relationship ID. See <u>CAT FAQ M2</u> for more information on the prohibition on use of actual account numbers, and <u>CAT FAQs M10</u> and <u>M14</u> for more information on masking. Also, refer to the <u>CAT Industry Presentation on FDID</u> for additional information.

A change/replacement in the FDID value associated with a particular trading account, Relationship ID and Entity ID would be an isolated event that is only permissible in certain limited circumstances, such as system migration, change of vendors, change in Clearing Firm and change in masking methodology used for FDID values. See <u>CAT FAQ M16</u> for more information on replacing/changing an FDID.

Refer to <u>Section 4.2</u> and <u>Section 5.1.2</u> for details on reporting an FDID when an order is received for a new account and the new account number, on which the FDID is based, is not yet available.

Refer to the <u>CAT Reporting Customer and Account Technical Specifications for Industry Members</u> and the <u>CAT CAIS Industry Member Reporting Scenarios</u> for information on reporting FDIDs to the CAT Customer & Account Information System ("CAIS").

2.4.2.1. FDID Validation

CAT will validate that the value reported in the *firmDesignatedID* and *newOrderFDID* fields on applicable order and allocation events are present in Customer and Account Information System (CAIS) data.⁵

CAT also validates that the *firmDesignatedID* field in order and allocation events contain values that are valid on the specified Event Date. ⁶ Specifically, that the associated CAIS data has at least one Customer associated with the *firmDesignatedID* on or before the Event Date, and that the *firmDesignatedID* has no set *fdidEndDate*, or has an *fdidEndDate* set on or after the Event Date. CAT will consider both the *tradeDate* and the Event Date when validating the value provided in the *firmDesignatedID* field on allocation events with associated CAIS data, but only consider the *tradeDate* field when validating the value provided in the *newOrderFDID* field.

FDID validation errors caused by missing or incorrect CAIS data must be resolved by the submission of corrected data to CAIS. Corrections to CAIS are due by T+3 @ 5:00 PM ET, as outlined in the <u>CAT</u>

Reporting Customer and Account Information Technical Specifications for Industry Members-Full CAIS.

The related transaction errors will be reconciled by CAT.

FDID validation errors caused by incorrect transaction data must be resolved by the submission of corrected data to CAT. Corrections to CAT are due by T+3 @ 8:00 AM ET. See <u>Table 148: Reporting Deadline Examples</u> for more information.

2.4.3. Equity Symbols

Industry Members must report CAT Events related to listed equity Eligible Securities to CAT using the symbology of the primary listing exchange and must report CAT Events related to OTC Equity Securities using FINRA OTC symbology.

2.4.3.1. CAT Symbol Master

CAT will provide a start-of-day equity symbol master list, an intraday equity symbol master list, and an end-of-day equity symbol master list each day on the <u>CAT Public Website</u>.

⁵ This is based on data available in the CAIS Production Environment. See Error Codes 3709 and 3710 for additional details on newOrderFDID validation.

⁶ For Error Codes and validations, Event Date is the date portion of the eventTimestamp.

The symbol master file for Industry Members contains the following information:

- Listing exchange for listed securities with the symbol in the symbology of the listing exchange
- FINRA symbology for OTC Equity Securities
- Flag indicating whether the symbol is a test symbol.

Guidance for reporting order events occurring prior to an IPO symbol's inclusion on the CAT Reportable Securities List in Phase 2d is still under consideration⁷. Refer to CAT FAQ A33 for additional information.

2.4.4. Option Symbols

As stated above, the CAT NMS Plan requires symbols to be reported to CAT in the symbology of the listing exchange. Standard option symbols established across exchanges as the result of the Option Symbology Initiative (OSI) must be used for any single-leg listed options.

2.4.4.1. Flex Percent Option Symbols

FLEX Percent (FLEXPCT) options are a specific type of FLEX option where the strike price of the FLEX option is initially specified as a percentage of the closing price of the underlying instrument (equity or index) on that day. The order is entered and traded prior to the determination of the final strike price. At the time the order is accepted by the exchange, the symbol of the option is specified as a modified version of an OSI code as described below.

Example: %4SPXW 230818P00097000

Position	Length	Component	Description	Example
1	1	Percent prefix	Indicates that the option symbol represents a FLEXPCT option	%
2-7	6	Option Trading Symbol	The Root Trading Symbol indicating the underlying and FLEX terms (FLEX prefix in included in this root symbol). 6-character field buffered with trailing spaces.	4SPXW
8-13	6	Expiration Date	The expiration date of the option in YYMMDD format	230818 = 08/18/2023
14	1	Option Type	Call or Put	Р
15-19	5	Strike Price	Strike Price is represented as a <u>percentage of closing price</u> for FLEXPCT options. Strike Price is a 5-character field buffered by leading zeros.	00097 = 97

⁷ The participants intend to make the necessary filings in order to defer this activity to Phase 2d

This is an interim symbol that is used during the trading day within the exchange trading system. This interim symbol is only valid for a single trading day on which it was created (but the same symbol may be reused on a subsequent date to represent a new FLEXPCT option). The FLEXPCT symbol is 22 characters including a prefix of "%" to clearly indicate that it is a FLEXPCT option. Because FLEXPCT options are created during the trading day, the symbols are submitted to CAT by the exchange in intraday option dictionary files and are only ever present on the CAT Reportable Options Securities Symbol Master EOD.

After the market closes, the exchange determines that actual strike price in dollars, and issues a permanent OSI symbol which is sent to the OCC for listing and publication. Only this permanent symbol can be used for allocation and clearing.

In the hypothetical example of %4SPXW 230818P00097000, let's say the closing price of the SPX index is 4,555. Calculating 97% of 4,555 = 4418.35 which becomes the dollar strike price of the new FLEX Option. The final OSI code is issued 4SPXW 230818P04418350. This is a standard 21-character OSI code, which will be used for clearing and settlement, and all future trading of this option series.

Position	Length	Component	Description	Example
1-6	6	Option Trading Symbol	The Root Trading Symbol indicating the underlying and FLEX terms (FLEX prefix in included in this root symbol). 6-character field buffered with trailing spaces.	4SPXW
7-12	6	Expiration Date	The expiration date of the option in YYMMDD format	230818 = 08/18/2023
13	1	Option Type	Call or Put	Р
14-18	5	Strike Price	Strike Price represented in dollars. Strike Price is a 5-character field buffered by leading zeros.	04418 = 97
19-21	3	Strike Decimal	Strike Decimal is used to hold decimal values (pennies). Strike Decimal is a 3-character field buffered with trailing zeros.	350 = 35

2.4.5. Underlying Instrument for Multi-leg Orders

For multi-leg orders containing an equity option leg, populate the stock symbol in the symbology of the primary listing exchange. The value can be found in the *symbol* field of the CAT Reportable Equities Securities Symbol Master. This is the same symbology required for equity order events.

For multi-leg orders containing index option legs, populate the OCC underlying symbol, which can be found in the *primaryDeliverable* field of the CAT Reportable Options Securities Symbol Master. Please note that the underlying symbol is not always reflective of the first 6 characters of the OSI symbol.

Refer to the following examples which demonstrate cases when the underlying is the same and when the underlying is different from the first 6 characters of the OSI symbol, such as FLEX options and options that have undergone a corporate action.

```
optionKind|optionID|primaryDeliverable|exerciseStyle|settlementType|testOptionSeriesFlag
STAN|NFLX 230317P00800000|NFLX|A|PM|N
FLEX|1NFLX 230120C00579000|NFLX|A|PM|N
STAN|QRTEA 240119C00001750|QRTEA|A|PM|N
STAN|QRTA1 230120C00003000|QRTEA|A|PM|N
STAN|SPX 241220P04300000|SPX|E|AM|N
STAN|SPX 221230C04475000|SPX|E|PM|N
```

In the uncommon case where a multi-leg order contains option legs that do not all share the same underlying instrument, the Industry Member must provide a valid symbol for any of the legs.

Beginning on December 5, 2022, an error will be generated when a value is provided in the *underlying* field of a multi-leg event, but that value is not a valid symbol or option id for the event date.

2.4.6. Corporate Actions

The CAT System will maintain historical symbology in the Central Repository that includes corporate actions.

CAT will receive daily corporate action files and symbol updates from the various data sources (including equity and options listing exchanges, FINRA OTC Equity Symbols, Data Distribution Services from Options Clearing Corporation, etc.) and publish daily symbol master files to the Industry Members. The symbol changes impacted by corporate actions will be reflected in the daily symbol master files. Industry Members must use the updated symbol in Reportable Events from the effective date of the symbol change. Failure to report in the updated symbol would result in rejects of the record(s).

Industry Members are not required to report order adjustments due to corporate actions, e.g., price or size changes. However, if an Industry Member chooses to report an adjustment resulting from a corporate action, the adjustment must be reported using the Order Modified event (or Order Adjusted event).

2.4.6.1. Options Intraday Listing or Delisting

CAT accommodates intraday listing of options by exchanges. Industry Members must report the OSI symbol as the *optionID*, just like for previously listed options.

CAT will maintain a historical record of option symbols, including symbols that have been delisted. Exchanges and the OCC will provide reference data to CAT for option symbols that are listed or delisted intraday.

2.5. Data Types

CAT will accept two kinds of text-based files: JSON and CSV. Data types used throughout this document are described below.

To support JSON and CSV submissions, the <u>Industry Member Schema</u> (JSON) file is available on the CAT public website that describes each data type with required representation formats and a mapping that defines the position in a CSV representation.

2.5.1. Data Validation Based on Data Types

All data submitted to CAT will be validated based on the defined data type of each item, including proper formatting and range checking. All File Names, Field Names and Field Values are case sensitive in CAT with the exception of Data Type BOOLEAN. During validations, if the case does not match, an error will occur. Examples of accepted values are detailed in the table below. Valid values for Choice fields are defined in Appendix G: Data Dictionary for each data element. Valid data values, ranges, and formats will be specified in the record schema files, which will be used to validate submitted data element values. Records and values that fail validation will be rejected and will be reported as feedback to the Reporter and Data Submitter as detailed in Section 7.

Table 3: Data Types

Data Type	JSON Type	Description
Numeric	NUMBER	Composed of digits with an optional decimal point. Values must represent the exact value as per the examples: 1235 -1235 1235.67
		Numeric data types described in this document will include two numbers, the first is the maximum number of digits before the decimal point, and the second is the maximum number of digits after the decimal point. For example, Numeric (6,4) indicates that the number can have a maximum of 6

Data Type	JSON Type	Description
		digits before the decimal point and a maximum of 4 digits after the decimal point.
		Examples which comply with Numeric (6,4) include: -999999.9999
		-0.1 0
		0.0001
		100
		999999.99
		0.25
		099999.9990 0999999.99990
		Numeric values must always include a digit in the portion before the decimal. The fractional portion is optional. (for example, 0.25 cannot be represented as .25).
		Examples which do not comply with Numeric (6,4) include: 1234567.0
		.123 1.12345
		10.
		40a
		Numeric data types that require 0 digits after the decimal place should not include a decimal. The following example does not comply with Numeric (6,0): 1234.5 1234.0
Price	NUMBER	Numeric (10,8), which supports prices in the inclusive range from -999999999.999999999999999999999999999
Real Quantity	NUMBER	Numeric (12,6) with up to 12 digits before the decimal point and up to 6 digits after the decimal point. The type Real Quantity should not have trailing zeros in the decimal quantities.
		For example, 100 would be accepted. Real Quantity must not be a negative value.
Whole Quantity	NUMBER	Numeric (12,0). An integer value with no decimal fraction component. Whole Quantity must not be a negative value.
Integer	NUMBER	An integer value (positive, negative, or zero), with no decimal fraction component, in the inclusive range from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807 (the same range as a 64-bit signed integer).
Unsigned	NUMBER	An unsigned value, greater than or equal to zero, with no decimal fraction component, in the inclusive range from 0 to 18,446,744,073,709,551,615 (the same range as a 64-bit unsigned integer).
Boolean	BOOLEAN	A value with two choices: true or false. Boolean values are NOT case sensitive.
		In CSV representation, when required field, the value must equal true or

Data Type	JSON Type	Description	
		false (no quotation marks). If the field is optional or conditional and no value is reported, then the value is considered false in CSV representation. In JSON representation, if the field is not present, the value is considered false for required, conditional and optional fields.	
Alphanumeric	STRING	A string, composed only of letters and digits [a-zA-Z0-9]. When an Alphanumeric type is described, it will include a number, indicating the maximum length of the field. For example, Alphanumeric (7) means that the field can contain up to 7 characters. Alphanumeric values are case sensitive.	
Text	STRING	A string, composed of any printable ASCII character from 32 to 126. The string may not include the following characters which serve as delimiters: comma (ASCII decimal 44, hex 2C), pipe (ASCII decimal 124, hex 7C), double quote (ASCII decimal 34, hex 22), and @ (ASCII decimal 64, hex 40). When a Text data type is described, it will include a number, indicating the maximum length of the field. For example, Text (7) means that the field can contain up to 7 characters. Text values are case sensitive. When represented in JSON, the following rule applies: Backslash '\' is a reserved printable character in JSON and must be escaped in order to be used in strings by inserting a backslash prior to it within the string. For example: routedOrderID = 1234\ABCD must be reported to CAT as "routedOrderID":"1234\\ABCD". If the backslash is not escaped, it will be omitted from the string. For example, if the following is reported to CAT, "routedOrderID":"1234\ABCD", it will be stored as routedOrderID = 1234ABCD. Escape characters do not participate in the field value length.	
Date	NUMBER	An 8-digit integer representing the date in YYYYMMDD.	
Timestamp	STRING or Unsigned NUMBER	A timestamp represents a moment in time. Two timestamp formats are supported including STRING and NUMBER. Timestamps formatted as a STRING have a maximum length of 25 and are formatted as 'YYYYMMDD HHMMSS.CCCNNNNNN' with the Date and Time portions, separated by a space (ASCII decimal 32, hex 20) or the letter T (ASCII decimal 84, hex 54). All timestamps submitted in STRING format must be in Eastern Time (ET). • The Date portion must include four digit year, two digit month, and two digit day. Valid values: YYYY = 0000 - 9999, MM = 00 - 12, DD = 00 - 31. • The Time portion must include a two digit hour, two digit minute, two digit seconds. Valid values: HH = 00 - 23, MM = 01 - 59, SS = 01 - 59,	
		CCC = 000 – 999, NNNNNN = 000000 - 999999. Examples which comply with Timestamp in STRING format: 20190617T000120.000000000 20190617T000120	

Data Type	JSON Type	Description
		• 20170107T213000.123456789
		• 20170107 213000.123456789
		• 20190617 000120.123000000
		Examples which do not comply with Timestamp in STRING format:
		• 20190617T0120
		• 20190617T000120.
		As an alternative format, timestamp can be submitted as a value of type Unsigned, representing the number of nanoseconds that have elapsed since 00:00:00 Coordinated Universal Time (UTC), Thursday, 1 January 1970, not counting leap seconds. This is also commonly known as POSIX time or UNIX time. The same point in time from the above example would be represented as the number 1483842600123456789. Timestamps submitted in UTC must not be adjusted for Eastern Time.
		Note that the data type is different between the two formats. In JSON, the first representation requires it to be surrounded by double quotes, while the second does not.
		Examples which comply with Timestamp in NUMBER format: 1483842600123456789
		Examples which do not comply with Timestamp in NUMBER format:
		20190617T000120
		• 20190617 000120
Name/Value Pairs	OBJECT	An object composed of a list of zero or more attributes, where each attribute is either Boolean or Non-Boolean. A Boolean attribute is a Name and a Non-Boolean attribute is a Name with an accompanying paired Value. Multiple attributes are separated by a delimiter. Both Boolean and Non-Boolean attributes are case sensitive. Refer to Appendix G: Data Dictionary for a list of acceptable Boolean and non-Boolean attributes for the handlingInstructions and timeInForce Name/Value fields.
		nandinginstructions and timeinroice Name/value neids.
		When represented in JSON, the following rules apply:
		The OBJECT is contained within curly brackets { }.
		Name/Value Pairs are comma separated.
		A Value accompanied by a Name must be formatted as per the data type syntax required in JSON.
		A Boolean attribute should only include the Name. For example, if a handlingInstructions value of AOK (Auction or Kill) applies to an event, then it should be reported as "AOK": true. If AOK is not applicable to an event, then it should not be reported as "AOK": false; rather, it should not be reported at all.
		A Name that can contain a list of Values must be formatted as per the data type syntax required in JSON, even when only one value is present in the list.
		For example, handlingInstructions are represented as follows in JSON: "handlingInstructions":{

Data Type	JSON Type	Descri	ption	
		"AOK": true,		
		"DISP": 10.00,		
		"TMO":"20190419T092316.123456789",		,
		"AucResp":"AuctionID456"		
			":["MM1","MM2","MM3"]	
		}		
		When represented in CSV, the following rules apply:		
		The OBJECT is represented in a single position delimited by comma.		
		• Na	ame/Value Pairs are pipe delimite	ed.
		 A Boolean attribute should only include the Name. For example, if a handlingInstructions value of AOK (Auction or Kill) applies to an event, then it should be reported as AOK and it should NOT be reported as AOK=true. Similarly, if AOK is not applicable to an event, then it should not be reported as AOK=false; rather, it should not be reported at all. 		
			Name with multiple values must i ich Value.	nclude an '@' delimiter separating
		Non-Boolean attributes which require a paired Value will include that value immediately after the Name and a single equal sign (ASCII decimal 61, hex 3D).		
		In CSV handlinglast victions is represented as		
		In CSV, handlingInstructions is represented as: AOK DISP=10.00 TMO=20190419T092316.123456789 AucResp=		
		AUCTION AUCTIO		
		timeInForce is also defined as a Name/Value Pair, however only one attribute is applicable. The following examples demonstrate how to represent in JSON and CSV:		
		Ex JSON CSV		
		1 "timeInForce":{"DAY": DAY=20190528 20190528}		DAY=20190528
		2	"timeInForce":{"GTT": "20190528T160000.000000"}	GTT=20190528T160000.000000
		3	"timeInForce":{"IOC": true}	IOC
Array	ARRAY	A list o	f 0, 1 or more values of the same	e data type.
		When	represented in JSON, the follow	wing rules apply:
		• AF	RRAY is within a set of brackets [1
		Elements within the array are comma separated.		na separated.
		For example, atsOrderType is represented as the following in JSON: "atsOrderType":["PEG","midPEG"]		
		When	represented in CSV, the follow	ing rules apply:
		• AF	RRAY is represented in a single p	osition delimited by comma
		• El	ements in the array are pipe delir	nited
			represented in CSV, it is: midPEG,,,	

Data Type	JSON Type	Description	
Choice	STRING	A Text field with an explicit list of acceptable values. <u>Appendix G: Data Dictionary</u> lists the acceptable values for each Choice field.	
Symbol	STRING	Text (22). Refer to <u>Section 2.4.3</u> and <u>Section 2.4.4</u> for more details on Equity and Options symbols. The string is case sensitive.	
Message Type	STRING	Alphanumeric (5) indicating the type of message being reported.	
CAT Reporter IMID	STRING	Alphanumeric (7) - a CAT Reporter IMID.	
Exchange ID	STRING	Alphanumeric (7) – identifier that applies to exchanges.	
CAT Submitter ID	Unsigned NUMBER	A unique ID assigned by CAT to the CAT Reporting Agent.	
Industry Member ID	STRING	Text (16) – CRD and SRO-assigned Market Participant Identifier assigned by an SRO to one of its members.	
(IMID)		Formatted as <crd market="" of="" participant="" the="">:<sro-assigned identifier="" market="" participant="">.</sro-assigned></crd>	
		Example: CRD 123, IMID ABCD is populated as 123:ABCD	
Multi- Dimensional Array	Multi- Dimensional ARRAY	A compound object that consists of an array of objects. The JSON and CSV syntax for this data type is consistent with other Multi-Dimensional Array JSON Types.	
		When represented in JSON, the following rules apply:	
		ARRAY is within a set of brackets []	
		Each OBJECT contained in the ARRAY is within curly brackets { }	
		Elements within each object are comma separated	
		Conditional elements that do not have a value are not required to be included.	
		When represented in CSV, the following rules apply:	
		ARRAY is represented in a single position delimited by comma	
		Each object contained in the ARRAY is pipe delimited	
		Elements within each object are delimited by @	
		All elements defined for the Object must be represented in their specified position, even when there is not applicable value.	
Trade Side Details	Multi- Dimensional ARRAY	A compound object that consists of a list of data elements which supports the reporting of buy side details and sell side details in a Trade Event. When Trade Side Details are reported, each side will represent one set of details. buyDetails and sellDetails are two different fields. Each field is defined to contain an ARRAY that is limited to one object.	
		For example, Trade Side Details (buyDetails and sellDetails) are represented as follows in JSON:	
		"buyDotails" · [
		"buyDetails" : [{"orderID" : "OrderABC",	
		"orderKeyDate": "20190419T000000",	
		"side" : "B"}	
],	
		"sellDetails" : [
		{"side" : "SL",	

Data Type	JSON Type	Description	
		"firmDesignatedID" : "Prop123", "accountHolderType" : "P"}	
		When represented in CSV, refer to the following example:	
		,,,20190419T00000000@OrderABC@B@@@@,@@S@@Prop123@P@	
		Refer to Section 4.11.1	
		<u>Table 49: Trade Side Details</u> for the list of fields.	
Fulfillment Side Details	Multi- Dimensional ARRAY	A compound object that consists of a list of data elements that represents firm side or customer/client side details of an Order Fulfillment. Refer to Section 4.12.1 Table 53: Fulfillment Side Details and Section 5.1.12.1 Table 93: Options Fulfillment Side Details for the list of fields.	
Leg Details	Multi- Dimensional ARRAY	A compound object that consists of a list of data elements that represents one or more individual legs of a multi-leg option order as required on all Multi-Leg Option events.	
Aggregated Orders	Multi- Dimensional ARRAY	A compound object that consists of a list of data elements that represents one or more orders being aggregated. The aggregatedOrders field may include 0, 1, or more orders, with each order having a set of required data elements. For example, an aggregatedOrders will be presented as following in JSON:	
		"aggregatedOrders":[{"orderID" : "O1234",	
		"orderKeyDate": "20190419T000000"},	
		{"orderID" : "O1235", "orderKeyDate" : "20190419T092316.123456789"},	
		{"orderID" : "O1236",	
		"orderKeyDate" : "1483842600123450000",	
		"quantity" : "800"}	
		,	
		When represented in CSV, refer to the following example:	
		,,,O1234@20190419T000000@@ O1235@20190419T092316.123456789@@ O1236@1483842600123450000@800@,,,	
		If the multi-dimensional array is blank, CSV must only contain the first level delimiter, the comma. Only comma acts as the place holder, the lower level delimiter '@' must not be added.	

2.5.2. Required, Conditional, and Optional Fields

Throughout this document, event types and their fields will be defined. Each field will be notated with the abbreviation R, C, O or A to represent whether it is required, conditional, optional or applicable for ATSs only. This codification will appear in the last column of each table describing an event.

Table 4: Include Key

Value	Abbreviation	Description	
Required	R	Required for the given event. This field must always be included.	
Conditional	onditional C Conditionally required for the given event, depending upon other values submitted in the Reportable Event message.		
Optional O Optional for the given event. May be included at the discretion of the reporter/submitter.			
ATS A Applicable for ATSs only. Required when the CAT Reporter IMID is an A		Applicable for ATSs only. Required when the CAT Reporter IMID is an ATS.	

2.6. Linkage Overview

This section describes the Linkage Keys that are used to create lifecycles in CAT and explains how the Linkage Keys are constructed via different data elements in respective Reportable Events. When combined, these data elements must create a Linkage Key that is unique. All Reportable Events will be linked in CAT via the daisy chain approach and do not rely on timestamps or sequence in order to link events within a lifecycle.

2.6.1. CAT Linkage Keys

Below is the list of Linkage Keys that connect CAT events within an Industry Member and across Industry Members. In instances of a merger or acquisition, the *originatingIMID* will be used in place of the *CATReporterIMID* to support linkage.

Table 5: Linkage Keys

Linkage Key	Description	Fields	
Order Keys – Duplicat	tion of Order Keys results in the rejection of all ϵ	events with the same key	
Order Key	Links together the events of the same order, within an Industry Member. For example, Order Key links an Order Accepted event to a subsequent Order Route event.	 orderKeyDate CATReporterIMID symbol (or optionID) orderID 	
Prior Order Key	Links modifications to the original order. For example, Prior Order Key links an Order Modified event to the previous Order Accepted event.	 priorOrderKeyDate CATReporterIMID symbol (or optionID) priorOrderID 	
Parent Order Key	Links Child (Option) Order events and (Option) Order Internal Route Accepted events to the related parent order event. For example, links an Order Internal Route Accepted event to a parent New Order event.	 parentOrderKeyDate CATReporterIMID symbol (or optionID) parentOrderID 	

Linkage Key	Description	Fields
	Links an order event representing a duplicative electronic message to the previously reported order event representing the original manual order. Allocation Keys – Duplication of Trade, Fulfillm with the same key. Duplication of TRF Linkage	
Trade Key	Links Trade events to related Trade Supplement events.	 tradeKeyDate CATReporterIMID symbol tradeID
Fulfillment Key	Links CAT Order Fulfillment events to related Order Fulfillment Supplement events. Links CAT Order Fulfillment events to a related Order Fulfillment Amendment or Order event if the fulfillmentID remains the same.	 fillKeyDate CATReporterIMID symbol (or optionID) fulfillmentID
Prior Fulfillment Key	Links an Order Fulfillment event to a related Order Fulfillment Amendment event if a new fulfillmentID is assigned.	 priorFillKeyDate CATReporterIMID symbol (or optionID) priorFulfillmentID
TRF Linkage Key	Links the Trade event reported by the Industry Member to the related media tape report in the TRF/ADF/ORF.	 Event Date CATReporterIMID symbol tapeTradeID marketCenterID
Allocation Key	Links CAT Post-Trade Allocation events to related Amended Allocation events if the allocationID remains the same.	 allocationKeyDate CATReporterIMID symbol (or optionID) allocationID
Prior Allocation Key	Links CAT Post-Trade Allocation events to related Amended Allocation events if a new allocationID is assigned.	 priorAllocationKeyDate CATReporterIMID symbol (or optionID) priorAllocationID
Exchange Trade Linkage Key	Links a Trade event or Option Trade event to the related exchange Order Trade event	Refer to Section 2.6.3 below for more detailed descriptions.
Quote Keys – Duplica	tion of Quote Keys results in the rejection of all	events with the same key
Quote Key	Links new quote events reported by the Industry Member to other related quote events. For example, links a Quote Received event to a related Quote Cancelled event.	 quoteKeyDate CATReporterIMID symbol (or optionID) quoteID RFQID (for RFQ flow)

Linkage Key	Description	Fields
Prior Quote Key	Links a quote event being modified to the previous quote.	 priorQuoteKeyDate CATReporterIMID symbol (or optionID) priorQuoteID
IDQS Linkage Key	For Order Route events reported by an IDQS directed to a specific quote displayed on the IDQS, links the Order Route event reported by the IDQS to the related Quote Received event reported by the IDQS.	Refer to <u>Section 2.6.3</u> below for more detailed descriptions.
Route Linkage Keys – same key	- Duplication of Route Linkage Keys will result in	n unlinked errors for all records having the
Route Linkage Key	Links the CAT events reported by the Industry Member routing an order away and the Industry Member accepting the order.	Refer to <u>Section 2.6.3</u> below for more detailed descriptions.
Quote Route Key	Links quote events reported by an Industry Member routing a quote to an IDQS and the IDQS receiving the quote. In addition, links quote events reported by an Industry Member routing an electronic RFQ response to an Industry Member and the Industry Member receiving the electronic RFQ response	Refer to see <u>Section 2.6.3</u> below for more detailed descriptions.

2.6.2. Reporting Responsibilities of Sender/Receiver

Industry Members are responsible for reporting routes, modifications, and cancellations to CAT. When modifying or cancelling orders, Industry Members are required to report any request received denoting the time that the request was received. Industry Members are not required to report the modification or cancellation request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a modification or cancellation request was received that was too late to modify/cancel, and the order was not terminal (e.g., the order was "in-flight" and there was no confirmation time), the request must be reported as an Order Modification/Order Cancel Request event.

Industry Members are not required to report requests to modify or cancel an order that were sent to another Industry Member broker-dealer or exchange. Separately, Industry Members are required to report a modification or cancel once the cancellation or modification was confirmed.

Below is a list of <u>sample</u> scenarios and the reporting responsibilities of the sender (Broker A) and the receiver (Broker B). The sequence or action description may vary based on the values used to populate the timestamp for each event in accordance with requirements outlined in Sections 4 and 5. This guidance is also applicable to the sender (Broker A) when routing to an Exchange instead of another

Industry Member Broker-Dealer. Refer to the <u>CAT Industry Member Reporting Scenarios</u> document for detailed examples.

Table 6: Reporting Responsibilities of Sender/Receiver

	Sender	(Broker A)	Receiver (Broke	r B or Exchange)
Scenario	Action	CAT Report	Action	CAT Report
Routing an Order				
Broker A routes an order to Broker B	1) Routes the order to Broker B	Order Route	2) Accepts the order from Broker A	Order Accepted
An Order routed from Broker A to Broker B is rejected by Broker B	1) Routes the order to Broker B	Order Route with routeRejectedFlag populated as 'true'	2) Rejects the order from Broker A	N/A
Customer/Client Modifica	ation/Cancellation of a	Previously Routed Ord	ler	
Customer/client of Broker A requests to modify an order previously routed to Broker B Broker A modifies the route to Broker B	1) Receives the customer/client order modification request (as either modification or cancel/replace request) and modifies route to Broker B	Modification Request (or requestTimestamp in MEOM) and Route Modified event	2) Receives Request from Broker A	Order Modification Request (or requestTimestamp in MEOM)
	4) Receives confirmation from Broker B and updates OMS/EMS	Order Modified event (eventTimestamp in MEOM is the confirmation time)	3) Confirms modification to Broker A	Order Modified event (eventTimestamp is the confirmation time)
Customer/client of Broker A requests to modify an order previously routed to Broker B Broker A cancels the	Receives the customer/client modification request and routes cancel/new order to Broker B	Order Modification Request (or requestTimestamp in MEOM), Route Cancelled, and Order Route	2) Receives the cancel/new order request from Broker A	Order Cancel Request (or requestTimestamp in MEOC)
route and sends a new route to Broker B	4) Receives confirmation from Broker B and updates OMS/EMS	Order Modified (eventTimestamp in MEOM is the confirmation time)	3) Confirms cancel/new order to Broker A	Order Cancelled (eventTimestamp is the confirmation time) and Order Accepted
Customer/client of Broker A requests to cancel an order that was previously routed to Broker B.	1) Receives the customer/client cancellation request and cancels route to Broker B	Order Cancel Request (or requestTimestamp in MEOC) and Route Cancelled	2) Receives the request from Broker A	Order Cancel Request (or requestTimestamp in MEOC)
	4) Receives confirmation from Broker B and updates OMS/EMS	Order Cancelled (eventTimestamp is the confirmation time)	3) Confirms cancellation to Broker A	Order Cancelled (eventTimestamp is the confirmation time)
Modification/Cancellation	of a Previously Rout	ed Firm Order		

	Sender	(Broker A)	Receiver (Broke	er B or Exchange)
Scenario	Action	CAT Report	Action	CAT Report
Broker A requests to modify a firm order previously routed to Broker B	Broker A modifies route to Broker B (as either modification or cancel/replace request)	Route Modified event	2) Receives Request from Broker A	Order Modification Request (or requestTimestamp in MEOM)
	4) Receives the confirmation from Broker B and updates OMS/EMS	Order Modified event (eventTimestamp in MEOM is the confirmation time)	3) Confirms modification to Broker A	Order Modified event (eventTimestamp is the confirmation time)
Broker A requests to modify an order previously routed to Broker B Broker A cancels the	1) Broker A routes cancel/new order to Broker B	Route Cancelled and Order Route	2) Receives the cancel/new order request from Broker A	Order Cancel Request (or requestTimestamp in MEOC)
route and sends a new route to Broker B	4) Receives the confirmation from Broker B and updates OMS/EMS	Order Modified (eventTimestamp in MEOM is the confirmation time)	3) Confirms cancel/new order to Broker A	Order Cancelled (eventTimestamp is the confirmation time) and Order Accepted
Broker A requests to cancel an order that was previously routed to Broker B.	1) Broker A cancels route to Broker B	Route Cancelled	2) Receives the request from Broker A	Order Cancel Request (or requestTimestamp in MEOC)
	4) Receives the confirmation from Broker B and updates OMS/EMS	Order Cancelled (eventTimestamp is the confirmation time)	3) Confirms cancellation to Broker A	Order Cancelled (eventTimestamp is the confirmation time)
Firm Initiated Cancellation Modification/Cancellation			Without a Correspondii	ng
Broker A initiates a modification on a previously routed order	1) Modifies route to Broker B	Route Modified	2) Receives the request from Broker A	Order Modification Request (or requestTimestamp in MEOM)
			3) Confirms modification to Broker A	Order Modified (eventTimestamp is confirmation time)
Broker A initiates a cancellation on a previously routed order	1) Cancels route to Broker B	Route Cancelled	2) Receives the request from Broker A	Order Cancel Request (or requestTimestamp in MEOC)
			3) Confirms cancellation to Broker A	Order Cancelled (eventTimestamp is confirmation time)
Unsolicited Modification/ Modification/Cancellation			the Receiving Firm Wi	thout a Corresponding
Broker B initiates a modification of an	2) Receives the unsolicited update	No Route Modified event required.	1) Modifies the order and sends	Order Modified (eventTimestamp is

	Sender (Broker A)		Sender (Broker A) Rece		Receiver (Broke	er B or Exchange)
Scenario	Action	CAT Report	Action	CAT Report		
order received from Broker A	from Broker B and updates OMS/EMS	Broker A must report any subsequent action on the order, such as a modification or a route	unsolicited update to Broker A	confirmation time)		
Broker B initiates a cancellation of an order received from Broker A	2) Receives the unsolicited cancel from Broker B and updates OMS/EMS	No Route Cancelled event required. Broker A must report any subsequent action on the order, such as a cancellation or a route	Cancels the order and sends unsolicited cancellation to Broker A	Order Cancelled (eventTimestamp is confirmation time)		

2.6.3. Summary of Route and TRF Linkage Keys

<u>Table 7</u> below summarizes the required data elements to construct the Route Linkage Key, which is used for linking Route and Order Accepted events reported by different entities in CAT. The combination of the data elements that make up the Route Linkage Key must be unique for the sender and receiver. When the Route Linkage Key is not unique, unlinked errors will be returned for all records having the same Route Linkage Key.

The *routedOrderID* field, which participates in the Route Linkage Key, is defined as a Text field and must **not** include the following characters which serve as delimiters: comma, pipe, double quote, and the @ symbol. When reporting to CAT in JSON, backslash is a reserved printable character and must be escaped in order to participate in the *routedOrderID*. If a backslash is used in the *routedOrderID* field and is not escaped when reporting in JSON, route linkage errors may occur. Refer to <u>Section 6.1.2.2</u> for additional guidance.

<u>Table 7</u> below also summarizes the required data elements to construct the TRF Linkage Key, which is used for linking Trade events to the related media tape report in the TRF/ADF/ORF. Non-media trade reports are not included in TRF linkage. The combination of the data elements that make up the TRF Linkage Key must be unique. When the TRF Linkage Key is not unique, all events with the same TRF Linkage Key will be rejected.

Industry Members may link to either the Reporting Side or the Contra Side of the related Trade Report, but may not combine elements between the Reporting Side and the Contra side of the Trade Report. If the *CATReporterIMID* in the MEOT record matches to the Reporting Side, the *tapeTradeID* must also

match the Reporting Side. If the *CATReporterIMID* in the MEOT record matches to the Contra Side, the *tapeTradeID* must also match the Contra Side.

For Participant related event details, refer to the <u>Plan Participant Technical Specifications</u>.

Table 7: Summary of Route and TRF Linkage Keys

Item	Description	Sender	Receiver
1	Routing Between	IM	IM
	Industry Members (Ims)	senderIMID	senderIMID
	(IIIIS)	destination (IMID)	receiverIMID
		Event Date	Event Date
		symbol (or optionID)	symbol (or optionID)
		routedOrderID*	routedOrderID*
2	Routing from an	IM	Participant
	Industry Member to an Exchange	senderIMID	routingParty
	an Exchange	destination (Exchange ID)	exchange (Exchange ID)
		Event Date	Event Date
		session	session
		symbol (or optionID)	symbol (or optionID)
		routedOrderID*	routedOrderID
3	Routing from an	Participant	IM
	Exchange to the Exchange	exchange (Exchange ID)	senderIMID (Exchange ID)
	Affiliated/Routing	routingParty	receiverIMID
	Broker	Event Date	Event Date
		symbol (or optionID)	symbol (or optionID)
		routedOrderID	routedOrderID*
4	Routing from an	IM	Foreign Broker-Dealer
	Industry Member to a non-reporting Foreign Entity	No Linkage	
5	Routing a quote	IM	IDQS
	event from an Industry Member	senderIMID	senderIMID
	broker-dealer to an	destination (IMID)	receiverIMID
	IDQS.	Event Date	Event Date
		symbol	symbol
		routedQuoteID*	receivedQuoteID*
6	Trade is executed	IM	TRF/ADF/ORF
	and reported to both CAT and the TRF/ADF/ORF	Event Date	Event Date portion of Execution Timestamp
	,	CATReporterIMID	Reporting or Contra MPIDs
		symbol	symbol
		tapeTradeID	Reporting or Contra Branch Sequence Number or Compliance ID

Item	Description	Sender	Receiver
		marketCenterID	Market Center ID
7	Order Route event is	IDQS (MEOR)	IDQS (MEQR)
	reported by an IDQS directed to a specific	CATReporterIMID	CATReporterIMID
	quote displayed on	destination	senderIMID
	the IDQS	quoteKeyDate	quoteKeyDate
		symbol	symbol
		quoteID	quoteID
8	Trade is executed on	IM (MOOT)	Participant (OT)
	an options floor and is routed to an	Event Date	Event Date
	exchange to print	optionID	optionID
		tapeTradeID	MOOTLINK in executionCodes
		marketCenterID	exchange
		side	Side
9	Routing a quote	IM	ADF
	event from an Industry Member	senderIMID	routingParty
	broker-dealer to an	destination (IMID)	exchange
	ADF.	Event Date	Event Date
		symbol	symbol
		routedQuoteID	routedOrderID
		session	session
10	Routing a quote	IM Responder	IM Solicitor
	event that represents an electronic RFQ	senderIMID	senderIMID
	response not	destination (IMID)	receiverIMID
	immediately actionable by an	Event Date	Event Date
	Industry Member	symbol (or optionID)	symbol (or optionID)
	broker-dealer to another Industry Member that need to be reported to CAT	routedQuoteID	receivedQuoteID

Not required for manual order route/receipt.

2.6.3.1. Routing Between Industry Members

The Route Linkage Key used to link events between Industry Members must be unique for the Event Date, senderIMID, destination/receiverIMID, symbol/optionID and routedOrderID. Session does not participate in the Route Linkage Key for routes between Industry Members when validating for

uniqueness and when performing linkages. ⁸ These requirements apply to <u>both the sending and receiving</u> Industry Member.

Order linkage between industry members requires that the Route Linkage Key is equal between the sender and receiver. The sending and receiving firms must mutually agree on the IMID to be used if they have multiple SRO-assigned IMIDs. If there is no predetermined agreement between the sender and the receiver, firms may reference the default IMID list as outlined in <u>Section 2.4.1.3</u>. However, the default IMID list is not intended to replace communication between the sender and receiver.

Leading zeros will be removed from the *routedOrderID* field when constructing the Route Linkage Key. The *routedOrderID* field is not required for manual routes when the *manualFlag* is populated 'true'.

Example Route Linkage Key when routing between Industry Members: CAT Reporter ABCD (CRD 123) routes an order to DEFG (CRD 456). CAT Reporter DEFG receives the order. In this example, CAT Reporter ABCD uses the SRO-assigned identifier of ABC when routing.

Table 8: Route Linkage Key Fields When Routing Between Industry Members

Sender – MEOR		Receiver – MEOA	
CATReporterIMID ABCD		CATReporterIMID DEFG	
senderIMID	123:ABC	senderIMID	123:ABC
destination	456:DEFG	receiverIMID	456:DEFG
Event Date (portion of eventTimestamp)	05012018	Event Date (portion of eventTimestamp)	05012018
symbol	XYZ	symbol	XYZ
routedOrderID	ROID1234	routedOrderID	ROID1234

2.6.3.2. Routing to Exchanges

The Route Linkage Key used to link Routes to Exchanges must be unique for the Event Date, senderIMID/routingParty, destination/exchange, symbol/optionID, routedOrderID and session. The session participates in the Route Linkage Key for routes to an Exchange; it is used when validating for

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⁸ Industry Members commonly establish multiple connections or "sessions" between counterparties. If Industry Members have multiple points of connection or sessions established with counterparties, Industry Members should be aware that many common protocols (*i.e.*, FIX), require unique order IDs on each order message per session. Industry Members should take proactive steps to ensure Route Linkage Key uniqueness when establishing additional trading sessions between counterparties.

uniqueness and when performing linkages. The *session* represents the name of the connection used when routing an order to a national securities exchange.

When routing to exchanges, the *destination* must be the Exchange ID to which the order is routed. The *senderIMID* must be populated with the prefix equal to the CRD of the routing firm, and the suffix equal to exchange assigned identifier that was used in the order route message to the exchange. The identifier populated in the suffix must equal the *routingParty* field value reported by the exchange on the Participant Order Accepted event. See the <u>Plan Participant Technical Specifications</u> for more details.

The *senderIMID* in this scenario may be different from the *CATReporterIMID*. Refer to <u>Section 2.4.1.1</u> for additional guidance on how to populate the *CATReporterIMID* and *senderIMID*.

The *routedOrderID* is assigned to the order by the Industry Member when routing the order to the exchange. The *routedOrderID* field must be reported to CAT in the exact format as sent to the exchange. Firms should take note of each exchange's interface specifications regarding special characters or spaces as some exchange transmission protocols may remove certain characters or spaces. Leading zeros will be removed from the *routedOrderID* and *session* fields when constructing the Route Linkage Key. This field value must match the value for *routedOrderID* reported by the exchange in their Order Accepted event.

Example Route Linkage Key when routing to an Exchange: CAT Reporter ABCD (CRD 123) routes an order to Exchange EXCH. ABCD's SRO identifier at EXCH is ABC.

Table 9: Route Linkage Key Fields When Routing to an Exchange

Sender – MEOR		Receiver – EOA	
CATReporterIMID ABCD		Exchange EXCH	
senderIMID	123:ABC	routingParty	ABC
destination	EXCH	exchange	EXCH
Event Date (portion of eventTimestamp)	05012018	Event Date (portion of eventTimestamp)	05012018
symbol	XYZ	symbol	XYZ
routedOrderID	ROID1234	routedOrderID	ROID1234
session	sess-01	session	sess-01

For additional information on the values to be provided based on the exchange the order is routed to and specific guidance related to each field required for Exchange Route Matching, refer to the <u>Order Routing</u> <u>Field Mapping</u> document published on the IM Technical Specifications page of the CAT Public Website.

2.6.3.3. Routing from an Exchange to the Exchange's Routing Broker

The Route Linkage Key used to link events between a route from an Exchange to the Exchange's Routing Broker must be unique for the Event Date, exchange/senderIMID, routingParty/receiverIMID, symbol/optionID and routedOrderID. The session does not participate in the Route Linkage Key for routes between an Exchange and the Exchange's Routing Broker when validating for uniqueness and when performing linkages.

When an Industry Member that is an exchange routing broker receives an order routed from the exchange, the *senderIMID* field must be the Exchange ID from which the order is received. Firms receiving an order from an exchange must populate the *receiverIMID* with the prefix equal to the CRD of the receiving firm, and the suffix equal to the identifier known by the exchange sending the order. The identifier populated in the suffix must equal the *routingParty* field value reported by the exchange on the Participant Order Route event. See the Plan Participant Technical Specifications for more details.

The *receiverIMID* in this scenario may be different from the CAT Reporter IMID. Refer to <u>Section 2.4.1.1</u> for additional guidance on how to populate the CAT Reporter IMID.

Example Route Linkage Key when receiving an order from an Exchange: Routing Broker ABCD (CRD 123) receives an order from Exchange EXCH. ABCD's SRO identifier at EXCH is ABC.

Table 10: Route Linkage Key Fields When Receiving an Order From an Exchange

Sender – EOR		Receiver – MEOA	
Exchange EXCH		CATReporterIMID ABCD	
routingParty	ABC	receiverIMID	123:ABC
exchange	EXCH	senderIMID	EXCH
Event Date (portion of eventTimestamp)	05012018	Event Date (portion of eventTimestamp)	05012018
symbol	XYZ	symbol	XYZ
routedOrderID	ROID1234	routedOrderID	ROID1234

2.6.3.4. Routing to Foreign Destinations and U.S. non-CAT Reporting Entities

When an order is routed to a foreign non-CAT-reporting entity, the *destinationType* must be marked as 'N' (Foreign). When routing to a foreign non-CAT-reporting entity, there is no requirement to report *senderIMID*, *destination*, or *routedOrderID*, but an Industry Member may choose to populate these fields.

When *destinationType* is 'N', a CRD Prefix is not required to be populated in the *destination* field if it is optionally populated.

If an Industry Member is unable to guarantee record level uniqueness of simultaneous routes to a foreign destination without populating the *senderIMID*, *destination*, or *routedOrderID* fields, then the Industry Member must populate any combination of these fields on its Order Route event that will guarantee record level uniqueness.

The *destinationType* and *senderType* values of 'O' for order events are used to support linkage in scenarios where an order in an OTC equity symbol of a foreign security is routed between Industry Members, and the sender or receiver may not have had a CAT reporting obligation in accordance with <u>Section I</u> of the CAT FAQs. When *destinationType* or *senderType* 'O' for order events is populated, linkage will be attempted on the Order Route or Order Accepted/Order Modified event. After linkage is attempted, if no link is found, the firm will not receive an unlinked error. Refer to the <u>CAT Industry Member Reporting Scenarios</u> document for detailed examples of reporting *destinationType* and *senderType* 'O' to CAT.

Refer to Section I of the CAT FAQs for additional information on routing orders to a foreign destination.

For not immediately actionable electronic RFQ responses, the *destinationType* and *senderType* values of 'N' or 'S' are used to suppress linkage errors in scenarios where an quote event is routed to, or received from, a foreign Non-CAT Reporting entity such as a Foreign broker-dealer and a U.S. non-CAT Reporting entity. The Industry Member will not receive an unlinked error. When *destinationType* is 'N' or 'S', a CRD Prefix is not required to be populated in the *destination* field if it is optionally populated. When *senderType* is 'N' or 'S', a CRD Prefix is not required to be populated in the *senderIMID* field if it is optionally populated.

2.6.3.5. Routes Rejected by the Destination Venue

Industry Members will be required to report an Order Route event with the *routeRejectedFlag* populated as 'true' if a sender receives notification from the destination venue that a route has been rejected by the recipient. If the sender has not received acknowledgment from the destination venue after a time period determined by the sender, and the sender "abandons" the route, the sender may mark the *routeRejectedFlag* as 'true'. Additionally, an Order Route Supplement event may be used to populate the *routeRejectedFlag* as 'true'.

While Industry Members are responsible for accurately reporting the *routeRejectedFlag* to CAT, linkage will be attempted on all Order Route events that contain a *routeRejectedFlag* as 'true' in order to account for instances where there may be a miscommunication between venues as to whether or not an order was accepted or rejected. After linkage is attempted, if no link is found, the firm will not receive an unlinked error if the *routeRejectedFlag* is populated as 'true'.

2.6.3.6. Option Floor Trades

The Exchange Trade Linkage Key is used to link a manual options floor trade to the related Order Trade event reported by the participant. The Exchange Trade Linkage Key for manual options floor trades must be unique for the Event Date, *optionID*, *tapeTradeID*, and *marketCenterID*. The *side* will be included in the linkage key in order to ensure linkage to the correct side of the exchange OT. The *marketCenterID* must be the Exchange ID of the floor where the execution occurred. The *tapeTradeID* must be populated with a value determined and provided by the exchange.

Example Exchange Trade Linkage Key: Floor Broker ABCD (CRD 123) is the buyer in an order manually executed on the floor of Exchange EXCH.

Table 11: Exchange Trade Linkage Key Fields for Options Executed Manually on the Exchange

Floor and Printed on the Exchange

Sender – MOOT		Receiver	– OT
CATReporterIMID ABCD		Exchange EXCH	
marketCenterID	EXCH	exchange	EXCH
Event Date (portion of eventTimestamp)	20210503	Event Date (portion of eventTimestamp)	20210503
optionID	ABCD 210716C00062500	optionID	ABCD 210716C00062500
tapeTradeID	ABCD12345	MOOTLINK in executionCodes	ABCD12345
side	S	side	S

For additional information on the values to be provided based on the exchange on which the trade is executed, and specific guidance related to each field required for Exchange Trade Matching, refer to the Options Exchanges Trade Field Mapping document published on the IM Technical Specifications page of the CAT Public Website.

2.6.3.7. Equity Exchange Trade Linkage

In limited circumstances, the Exchange Trade Linkage Key is used to link a Trade event reported by an Industry Member to a related Order Trade event reported by a participant, as opposed to a related TRF report submitted by the Industry Member.

NYSE Floor Cross

The Exchange Trade Linkage Key for manual NYSE floor trades where the *manualFlag* is populated as 'true' must be unique for the Event Date, *symbol*, and *tapeTradeID*. The *marketCenterID* must reflect a

value of 'N' (New York Stock Exchange). The *tapeTradeID* must be populated with a value determined and provided by the exchange.

Example Exchange Trade Linkage Key: Floor Broker ABCD (CRD 123) is the buyer in an order manually executed on the NYSE floor.

Table 12: Exchange Trade Linkage Key Fields for Orders Executed Manually on the NYSE Exchange Floor and Printed on the Exchange

Sender – MEOT		Receiver – EOT	
CATRep	orterIMID ABCD	Exchange EXCH	
marketCenterID	N	exchange	NYSE
Event Date (portion of eventTimestamp)	20210503	Event Date (portion of eventTimestamp)	20210503
symbol	XYZ	symbol	XYZ
tapeTradeID	ABCD12345	tradeID	ABCD12345
side	S	side	S

3. Special Reporting Requirements

3.1. Alternative Trading Systems ("ATS") Reporting

ATSs are required to submit additional information in applicable CAT events. ATS fields must be populated if the *CATReporterIMID* is an ATS. Any ATS fields, such as *workingPrice*, that are not applicable to the event must be populated by the ATS using a value of "0". Industry Members that are not ATSs must leave these fields blank.

3.1.1. National Best Bid and Offer (NBBO)

ATSs are required to report NBBO information.

The NBBO must be reported to CAT from the perspective of the ATS. Specifically, the NBBO (or relevant reference price) reported must be the NBBO in effect at the time of the order event, and the timestamp of when the ATS captured the effective NBBO (or relevant reference price). In addition, the ATS must identify the market data feed (NBBO Source) it used to obtain the NBBO (or relevant reference price).

If another reference price, such as the primary market's BBO, is used by the ATS, then the applicable reference price must be reported instead of the NBBO. If there is no price, the ATS must populate the *nbbPrice* and *nboPrice* fields with a value of "0".

While the *nbbQty* and *nboQty* fields are optional for ATSs, if an ATS chooses not to populate a quantity in these fields, they must be populated with a value of "0".

FINRA Rule 6830(a)(1)(A)(xi)(c) requires ATSs using an alternative NBBO feed from what was reported on its ATS data submission to notify FINRA of the fact that an alternative source was used, identify the alternative source, and specify the date(s), time(s) and securities for which the alternative source was used. In order to comply with FINRA Rule 6830(a)(1)(A)(xi)(c) for the purpose of CAT reporting, Industry Members must submit an ATS NBBO Source Change Form via email to FINRA CAT. Instructions for submitting this form are posted to www.catnmsplan.com/forms.

3.1.2. ATS Order Types

For events reported by ATSs, atsOrderType field is used to capture ATS-specific order types. The orderType and atsOrderType fields are not mutually exclusive; ATSs must populate both fields on applicable events. Industry Members that are not ATSs must leave the atsOrderType field blank.

ATSs must register their order types with CAT at least 20 business days prior to the order type becoming effective using the CAT Reporter Portal. An order type must be registered before any relevant CAT

events can be submitted. An ATS Order Type Identifier shall not be required for market and limit orders that have no other special handling instructions that dictate how the order is handled within the ATS. Specific instructions for registering *atsOrderTypes* are available in CAT Alert 2019-01.

3.1.3. Sequence Number

ATSs must also provide a sequence number assigned by the ATS's matching engine on all events reported to CAT by the ATS. Industry Members that are not ATSs are not required to populate the *seqNum* field.

3.1.4. Display and Non-Display ATSs

ATSs are required to populate the *atsDisplayInd* indicating if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. If the order is displayed (*atsDisplayInd* = 'S', 'Y', or 'A'), the ATS is required to populate both the *displayPrice* and *displayQty* fields indicating the price and quantity at which the order was displayed. If the order is not displayed (*atsDisplayInd* = 'N'), the ATS is required to populate the *displayPrice* and *displayQty* fields with a value of '0'. Industry Members that are not ATSs must leave the *atsDisplayInd*, *displayPrice*, and *displayQty* fields blank.

3.1.5. CAT Reporter IMID

When reporting to CAT, Industry Members operating an ATS must populate the *CATReporterIMID* using their FINRA assigned ATS MPID.

3.2. Manual Orders

The CAT NMS Plan defines a Manual Order Event as "non-electronic communication of order-related information for which CAT Reporters must record and report the time of the event." Manual CAT events must be marked as a manual event using the *manualFlag* field and must include an electronic capture time if the manual event is captured in an order management or execution system.

Proprietary orders (both equities and options) that are simultaneously entered into an OMS/EMS upon origination are always considered electronic.

3.2.1. Manually Received CAT Events Immediately Systematized

Orders which are non-electronically communicated but immediately systematized (e.g., a broker received a call and directly enters the order into the order management system) must be marked as a manual event using the *manualFlag*. In this scenario, the Industry Member is required to report both the manual

time of order receipt and the electronic capture time, and the same timestamp must be reported in both fields in milliseconds. ⁹

Orders which are received or routed via instant message (IM) or email are considered manual events. Refer to CAT FAQ C7 for additional information.

Refer to Section G of the CAT FAQs for additional information on manual orders.

3.2.2. Manual CAT Events Followed by Separate Electronic Messages

If an Industry Member routes or receives an order manually and then subsequently sends or receives an electronic message to represent the manual instruction, the following reporting requirements apply:

- All material terms and conditions of a manually received or routed order, including time of route
 and receipt, must be reported to CAT on the required manual event, with all relevant timestamps
 representing when the manual CAT event occurred.
- Additional electronic messages related to a manual order or route that do not change any
 material term or condition of the original order are not required to be reported to CAT as they
 represent a duplicate of the original order.
- If the duplicate electronic message includes a routed order identifier that could be used to link the
 sender's route report to the receiver's new order, and the member has the ability to include this
 electronic information on the manual event (referred to as a "merged" event), the Industry
 Member must do so.
- If the Industry Member is not able to merge the manual and electronic information in a single manual event and elects to report the duplicate electronic message independently, such messages must be reported with the electronicDupFlag populated as 'true', and the manualFlag populated as 'false'. Further, the manualOrderID must be populated with the orderID of the original manual order.

3.2.3. Manual Trade events and Order Fulfillment events

Trade events and Order Fulfillment events must be marked as either manual or electronic using the *manualFlag* field.

⁹ Refer to <u>CAT FAQ G4</u> for additional information.

A Trade event is considered manual when the trade is executed outside of an OMS/EMS and must be manually entered before it can be trade reported. The time of execution populated in the *eventTimestamp* field is the time all terms and conditions were agreed to between the two parties, consistent with SRO and SEC rules.

An Order Fulfillment event is considered manual if the fill of the customer/client order occurred outside of an OMS/EMS and was manually entered into an electronic system. The fulfillment time populated in the *eventTimestamp* field would be the time the firm gave the fill to the order. If a trader manually "drags and drops" or "clicks" in an OMS to fill an order, the time of the trader's action would be the fulfillment time, and the Order Fulfillment event could be considered either manual or electronic.

3.3. Allocation Events

3.3.1. Definition and Requirements

The CAT NMS Plan defines an Allocation Report as "a report made to the Central Repository by an Industry Member that identifies the Firm Designated ID for any account(s), including subaccount(s), to which executed shares are allocated". This includes the placement of shares/contracts into the same account for which an order was originally placed, and the placement of shares/contracts into an account based on allocation instructions (e.g., subaccount allocations). In accordance with the CAT NMS Plan, allocation events are not required to be linked to particular orders or executions.

Allocation events must be reported to CAT for all allocations to a customer account, including DVP/RVP account allocations. Allocations to accounts other than a customer account (e.g., proprietary accounts, step outs, correspondent flips) may optionally be reported to CAT, but must be appropriately marked in the *allocationType* field.

3.3.2. Reporting Obligation

The CAT reporting obligation for allocation events is <u>separate and distinct</u> from other CAT events defined in this document. While the CAT reporting obligation for other CAT events belongs to the firm receiving or originating the order, the CAT reporting obligation for allocation events belongs to the firm performing the allocation, which is generally the clearing or self-clearing firm processing the allocation.

The firm with the reporting obligation for New Order events must register the FDIDs it uses for new order reporting, and the firm with the reporting obligation for allocation events report must register the FDIDs it uses for allocation reporting.

3.3.3. Cancelling an Allocation

The cancellation of an allocation can be reported to CAT using the *cancelFlag* and *cancelTimestamp* in the MEPA/MOPA event, or the MEAA/MOAA event. If the cancellation is reported using the MEPA/MOPA event, the *eventTimestamp* must reflect the date/time that the allocation was processed, and the *cancelTimestamp* must reflect the time that the allocation was cancelled. If the cancellation cannot be captured in the original MEPA/MOPA event, it must be captured in a correction to the MEPA/MOPA event. Corrections reflecting the cancellation of an allocation event on a subsequent day will not be marked late by CAT.

If the cancellation is reported using the MEAA/MOAA event, the cancel information may be captured on the last Amended Allocation event reported to CAT using the same method described above. The cancel information may also be captured by reporting a 'NEW' event reflecting an update to the status of the allocation, showing that the allocation is now cancelled. The *eventTimestamp* and the *cancelTimestamp* in this scenario would both reflect the time that the allocation was cancelled.

The cancellation of an amendment without cancelling the allocation itself is reported using a new MEAA/MOAA event and is not reflected using the *cancelFlag* and *cancelTimestamp*. Refer to the <u>CAT Industry Member Reporting Scenarios</u> document for detailed examples of how allocation amendments and cancellations must be reported to CAT.

3.4. Responses to RFQs and Solicitation

3.4.1. Scope

While Industry Members are not required to report Requests for Quotes ("RFQs") or Indications of Interests ("IOIs") to CAT, Industry Members are required to report responses to RFQs and other forms of solicitation that are firm expressions of interest to trade ¹⁰ falling within he definition of an "order" under

¹⁰ Beginning August 1, 2026, all RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8), will be required to be reported to CAT. On May 20, 2024, the SEC announced an order Granting a Temporary Conditional Exemption Pursuant to Section 36(a)(1) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 608(e) of Regulation NMS Under

Rule 613(j)(8) of Regulation NMS of the Exchange Act, the CAT NMS Plan and the Compliance Rules, as described in <u>CAT FAQ B45</u> and <u>CAT FAQ C8</u>.

Industry Members are required to report all responses communicated directly to an Industry Member's OMS/EMS in standard electronic format (e.g., FIX) that are immediately actionable, where no further action is required in order to route/execute the order. Such responses are reportable by <u>both</u> the CAT Reporter responding to the RFQ solicitation ("the Responder") and the CAT Reporter receiving the response ("the Solicitor"), including responses that were not ultimately selected, and the *solicitationFlag* must be populated as 'true' by both parties. These requirements apply to equities, options, and multi-leg activities.

Manual RFQ responses are considered manual/verbal, and in accordance with the November 12, 2020 Exemptive Order filed by the SEC¹¹, in Phase 2c/2d, Industry Members are not required to report any manual responses/receipts. However, manual/verbal responses are expected to become reportable in future phases of CAT, as this temporary exemptive relief expires on July 31, 2026. ¹²

Industry Members are not required to report the following types of activities in Phases 2c/2d:

- Responses not communicated in standard electronic format (e.g., phone call, IM/chat).
- Responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS with an understanding that further action is required before a trade can be executed/routed (not immediately actionable).

However, once a winning bid(s) has been selected, any subsequent reportable activity must be reported to CAT. Once an order is generated as a result of the winning response, the order is required to be reported by the party sending the order and the party receiving the order. This includes scenarios where

the Exchange Act, Relating to the Reporting of Responses to Requests for Quotes and Other Solicitation Responses Provided in a Standard Electronic Format that is not "immediately actionable" (i.e., further action is required by the responder providing the quote in order to execute or cause a trade to be executed) ("NIA Electronic RFQ Responses"), as Required by Section 6.4(d) of the National Market System Plan Governing the Consolidated Audit Trail to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8), from August 1, 2024 to August 1, 2026.

¹¹ https://www.sec.gov/rules/exorders/2020/34-90405.pdf

¹² On March 31, 2023, the Plan Participants filed a request for exemptive relief requesting an extension of the exemptive relief regarding the reporting of certain verbal floor activity and unstructured verbal and electronic upstairs activity through July 31, 2026. On July 28, 2023, the Commission extended the temporary relief granted in the 2020 Order for an additional three years, to July 31, 2026.

the Solicitor is required to send an order to the Responder after selection of the winning bid, or where the Responder is required to send an order to the Solicitor after selection of the winning bid.

The *solicitationFlag* must not be populated as 'true' on any events that occur after selection of the winning bid. For example, if a solicitation response is provided manually and is not reportable to CAT in Phase 2d, the order originated as a result of solicitation after the selection of the winning bid must reflect the *solicitationFlag* as 'false'. If a solicitation response is provided electronically and is reportable to CAT in Phase 2d, the events reflecting the response must reflect the *solicitationFlag* as 'true'. Any events that occur after the selection of the winning bid must reflect the *solicitationFlag* as 'false'. Refer to the CAT Industry Member Reporting Scenarios document for specific examples of how RFQ and Solicitation Response flow should be reported to CAT.

Table 13: Reporting Responsibilities of Responder and Solicitor

Scenario	Resp	onder	Soli	citor
Response is immediately actional				
Response is communicated directly to the Solicitor's OMS/EMS in standard electronic format (e.g., FIX), and no additional action is required by the Responder before a trade can be executed*	• (1) New Order	(2) Order Route to Solicitor	(3) Order Accepted for all responses received	(4) Any subsequent actions taken on the winning order
Response is NOT immediately a	ctionable, further act	tion is required befor	e an order can be exe	ecuted/routed
Response is communicated to Solicitor in standard electronic format (e.g., FIX), but after selection of the winning response, a separate order message must be sent to the Responder before an execution can occur*	(3) Order Accepted	(4) Any subsequent actions taken	(1) New Order	(2) Order Route to Responder
Response is communicated to Solicitor in standard electronic format (e.g., FIX), but after selection of the winning response, a separate order must be sent to the Solicitor before an execution can occur*	• (1) New Order	(2) Order Route to Solicitor	(3) Order Accepted	(4) Any subsequent actions taken

^{*}The specific events reported depends on the parties to the RFQ process (IM vs. Cust) and the specific workflow of the parties involved.

Industry Members Operating RFQ Platforms

Industry Members that provide RFQ platforms to other Industry Members generally are required to report CAT information for responses sent through these platforms (as they themselves would be considered the Responder/Solicitor), except under the following circumstances:

- The Industry Member providing the RFQ platform is doing so solely in a technology vendor
 capacity and not as a broker-dealer (e.g., the Industry Member has no involvement relating to
 the solicitations or responses other than providing the solicitation mechanism technology);
- The Solicitor must have a direct relationship with the Responders and understands that the Industry Member providing the RFQ platform is doing so solely in a technology vendor capacity and not as a broker-dealer; and
- Responders view solicitations as coming directly from the Solicitor and not the Industry Member providing the RFQ platform, for all purposes, including, but not limited to, CAT reporting, trade reporting, applicable fees, etc.

3.4.2. Reporting

If an RFQ or solicitation response was provided as an order, the responder must report its response to CAT using a New Order event and Order Route event to the solicitor. The solicitor must report the receipt of each response using an Order Accepted event.

If an RFQ or solicitation response was provided as a quote, the response would be reported to CAT using quote events. However, FINRA CAT is unaware of any workflows involving an immediately actionable quote message.

Industry Members are not required to report cancellation events for responses to an RFQ or solicitation that were ultimately not selected if the *solicitationFlag* is correctly populated as 'true'.

3.5. Stop Orders

3.5.1. Stop Loss Orders

When reporting stop loss orders to CAT, Industry Members must indicate the type of stop loss order that was received/originated or routed through a combination of the *handlingInstructions* and *orderType* fields.

The *handlingInstructions* value of 'STOP' is a Name/Value Pair that denotes the stop price and requires a numeric value representing the stop price (e.g., STOP=1.00). In instances where it is known that the order is a stop order, but the exact stop price is unknown because it is either based on an underlying condition or will be determined by the destination venue, Industry Members may populate a *handlingInstructions* value of 'STOPF'.

When reporting *handlingInstructions* values of 'SOQ' (Stop on Quote) or 'SLQ' (Stop Limit on Quote), the 'STOP' instruction must be reported in addition to these values to indicate the stop price on the order if it is known.

The *orderType* field for orders received/originated or routed as Stop orders must be populated as 'MKT', and the *orderType* field for orders received/originated or routed as Stop Limit orders must be populated as 'LMT'. Refer to Table 14 below for additional information.

Table 14: Reporting Requirements for Stop Orders

Type of Stop Order	Description	orderType	handlingInstructions
Stop	An order that is triggered by the last sale price at which point the stopped order becomes a market order.	MKT	STOP=1.00 (or STOPF if the price is not known)
Stop Limit	An order that is triggered by the last sale price at which point the stopped order becomes a limit order.	LMT	STOP=1.00 (or STOPF if the price is not known)
Stop on Quote	An order that is triggered by a quotation at which point the stopped order becomes a market order.	MKT	STOP=1.00 (or STOPF if the price is not known) and SOQ
Stop Limit on Quote	An order that is triggered by a quotation at which point the stopped order becomes a limit order.	LMT	STOP=1.00 (or STOPF if the price is not known) and SLQ
Trailing Stop	An order that allows the stop price to increase (or decrease) by a predetermined amount or formula (e.g., a specified dollar amount, a percentage of the market price, or some other predetermined criteria) as the market price of the security advances (or declines). Once triggered, stopped order becomes a market order. Refer to CAT FAQ B61 for additional information.	MKT	TS
Trailing Stop Limit	An order that allows the stop price to increase (or decrease) by a predetermined amount or formula (e.g., a specified dollar amount, a percentage of the market price, or some other predetermined criteria) as the market price of the security advances (or declines). Once triggered, stopped order becomes a limit order. Refer to CAT FAQ B61 for additional information.	LMT	TS

In addition to reporting the receipt or origination of the order with applicable *handlingInstructions*, Industry Members are required to report an Order Effective event (MEOE, MOOE, or MLOE, as applicable) when all underlying conditions of an order (e.g., the Stop) are met, and the order becomes and remains effective until it is fully executed or cancelled. The party that was holding the order at the time the order or underlying condition became effective has the obligation to report to CAT the Order Effective event. In scenarios where the trigger price was not explicitly captured in the *handlingInstructions* field on the related new order (e.g., Stop Formula, Trailing Stop), the *triggerPrice* field must be populated on the Order Effective event.

Refer to the <u>CAT Industry Member Reporting Scenarios</u> document for specific examples of how these orders should be reported to CAT.

3.5.2. Stop Stock Orders

When reporting stop stock orders to CAT, Industry Members are required to report the 'SW' *handlingInstructions* indicating that the transaction resulted from an order for which a member and another party agreed that the order will be executed at stop stock price or better. The 'SW' *handlingInstructions* value must be paired with the stop stock price that is greater than zero (e.g., SW=35.00).

For stop stock orders where the entire shares quantity of the order is not being stopped, the *handlingInstructions* field must also be populated with a value of 'SWQ' paired with a quantity value that is greater than zero representing the number of shares being stopped (e.g., SWQ=100). When a *handlingInstructions* value of 'SWQ' is populated, the value of 'SW' paired with the stop stock price must also be populated, otherwise the record will reject for invalid *handlingInstructions*.

An MEOE event is not required when reporting stop stock transactions to CAT. Refer to the <u>CAT Industry</u> <u>Member Reporting Scenarios</u> document for specific examples of how these orders should be reported to CAT.

3.6. Conditional Orders

When reporting conditional orders to CAT, Industry Members must indicate if the order is contingent on the execution of another order using *handlingInstructions* value 'CND', or if the order is contingent on the occurrence of a market condition using *handlingInstructions* value 'CMC' (e.g., once symbol ABCD trades X# of shares, the order becomes executable). Industry Members may populate both values if applicable to the order.

In addition to reporting the receipt or origination of the conditional order with applicable handlingInstructions, Industry Members are required to report an Order Effective event (MEOE, MOOE, or MLOE, as applicable) when all underlying conditions of the order are met and the order remains effective until it is fully executed or cancelled. The party that was holding the order at the time the order or underlying condition became effective has the obligation to report to CAT the Order Effective event. The triggerPrice field is not required to be reported on Order Effective events for orders that are conditional on another order, a market condition, or a spread condition.

When determining if the 'CND' or 'CMC' handlingInstructions must be populated, Industry Members must consider the date and time the firm determines it has received/originated an order in its books and

records. A conditional order becomes reportable once it is firmed up/confirmed. The time of receipt/origination for the sender would be the time the order was firmed up/confirmed by the sender, and the time of receipt for the receiver would be the time the firmed up/confirmed order is received from the sender. Refer to CAT FAQ B40 for additional information.

The 'CND' and 'CMC' handlingInstructions value must only be used in instances where an order is received and cannot be actioned because it does not become effective until the underlying condition is met. If the Industry Member does not consider an order to be received until the underlying condition is met and the order has become effective, then the guidance relating to the 'CND'/'CMC' handlingInstructions and Order Effective event would not apply, as the order would be considered effective upon receipt/origination. In this scenario, a New Order event must be reported to CAT reflecting the terms and conditions of the order that were applicable upon receipt, and the 'CND'/'CMC' handlingInstructions must not be populated.

If the Industry Member receives an order that can be immediately actioned upon receipt, but the order also has underlying conditions that will change the material terms of the order when the conditions are met, then the guidance relating to the 'CND'/'CMC' *handlingInstructions* and Order Effective event would not apply, as the order would be considered effective upon receipt. In this scenario, a New Order event must be reported to CAT reflecting the terms and conditions of the order that were applicable upon receipt, and the 'CND'/'CMC' *handlingInstructions* must not be populated. Any changes to the material terms of the order that occur as the result of an underlying condition must be reported as an Order Modified event.

If the Industry Member receives an order with a condition that may cause the order to become active or inactive multiple times throughout the day, the Industry Member must populate a value of 'CSC' (Contingent on Spread Condition) on its New Order event, and the Industry Member is not required to report an Order Effective or Order Modified event as the order becomes effective or ineffective throughout the day.

3.7. Multi-Leg Option Orders and Paired Orders

Paired Orders are defined for CAT reporting purposes as simple or multi-leg option orders that contain both the initial and contra side that are electronically routed to an exchange as a single message for crossing and/or price improvement. Orders routed as a pair must be reported to CAT, and all Option Order Route and Multi-Leg Order Route events routed in the pair must be identified using a pairedOrderID.

Paired Orders Do Not Include:

- Orders that are not treated as a paired order by the exchange such as "post and wait"
- Preferenced or directed orders that that do not contain both the buy side and the sell side
- Orders routed to another Industry Member, such as a Floor Broker

Multi-Leg orders must be reported using Multi-Leg Order events as defined in Section 5.2.

3.8. Orders Tied at a Net Price

If an equity order is tied to stock, fixed income, futures, or another product that is not reportable to CAT at a net price (or other formula such as a specific delta), Industry Members must populate the *netPrice* and the appropriate *handlingInstructions* value of 'TTS', 'TTF', 'TTO', 'TTU', or 'FUT'. This activity does not meet the definition of a multi-leg order, as these trading strategies do not contain an option leg.

If a simple equity is tied to a simple option at a net price (or other formula such as a specific delta) as part of a pairs trading strategy that does not meet the definition of a multi-leg order, the equity order must contain a *handlingInstructions* value of 'TTSO', and the option must contain a *handlingInstructions* value of 'TTS'.

If a single, simple option order is tied to futures, fixed income, or another product that is not reportable to CAT, Industry Members must populate the appropriate *handlingInstructions* values of 'TTF', 'TTO', or 'FUT'.

Industry Members are required to populate the *netPrice* field on equity or simple option order events if the order is tied to stock, fixed income, futures, or another product that is not reportable to CAT, at a net price. The *netPrice* field is not required to be populated if the order is tied to another formula, such as a specific delta. However, the relevant *handlingInstructions* value is required to be populated.

The *handlingInstructions* values 'TTS' and 'TTSO' are not required to be captured on multi-leg order events. Refer to <u>CAT FAQ B71</u> for additional information.

3.9. Percentage Based Prices

There are cases where the price of an order is specified as a percentage of a price to be determined at a future time – e.g., closing price of the underlying security. Percentage-based order prices are most common with FLEXPCT options, but could potentially be provided with other securities.

If an Industry Member receives or originates an order where the price is specified as a percentage of a benchmark price, the Industry Member is required to report the percentage-based price in the *price* field and report the 'PCTPX' value in the *handlingInstructions* field. For example, an Industry Member receives an order to Buy 100 %1ABCD 251231C00100000 with a limit price of 4.75% of the closing price of stock

ABCD. The order events would be reported to CAT with 4.75 populated in the *price* field and the 'PCTPX' value populated in the *handlingInstructions* field. At the end of the trading day, stock ABDC closes at 16. The final symbol of the FLEX option is 1ABCD 251231C00016000 (100% of the \$16 closing price of ABCD as the strike price of the FLEX option) and the final trade price is \$0.76 (4.75% of the \$16 closing price of ABCD as the trade price), which are reported to CAT by the exchange.

orderType	price	optionID	handlingInstructions
LMT	4.75	%1ABCD 251231C00100000	PCTPX

Please note that the example above of percentage-based order price includes a FLEXPCT option, because this is the most common scenario. However, an Industry Member may receive an order in a FLEXPCT option with a dollar limit price (e.g., \$0.75). In this case, '0.75' would be specified in the *price* field and the 'PCTPX' *handlingInstructions* value would not be appropriate.

orderType	price	optionID	handlingInstructions
LMT	0.75	%1ABCD 251231C00100000	

Likewise, a percentage-based price (4.75%) could be provided on an order for a security that is not a FLEXPCT option (e.g., 1ABCD 251231C00015950). In this case, the price reporting above would still apply.

orderType	price	optionID	handlingInstructions
LMT	4.75	1ABCD 251231C00015900	PCTPX

4. Equity Events

This section describes Reportable Events for equities that are Eligible Securities. The following table lists each equity event type with its corresponding Message Type code.

Fields specified as Reserved for Future Use are also greyed out and must remain blank. Future enhancements to Message Types with positions that are Reserved for Future Use will occupy the available position before adding a new position.

Table 15: Equity Events

Section	Event	Message Type	Description
4.1	New Order	MENO	Reported when an Industry Member originates an order, receives a customer order, originates a bunched, representative or proprietary order, or receives an order from a non-reporting foreign entity.
4.2	New Order Supplement	MENOS	Supplement to the New Order event, used when the New Order event exceeds the maximum length allowed, or when the orders being represented are not captured in the New Order Event. Also used to provide an FDID once known if not available at time of reporting a MENO.
4.3	Order Route	MEOR	Reported when an Industry Member routes an order to another broker-dealer, exchange or ATS.
4.3.1	Route Modified	MEMR	Reported when an Industry Member modifies a route that was sent to another broker-dealer, exchange or ATS.
4.3.2	Route Cancelled	MECR	Reported when an Industry Member cancels a route that was sent to another broker-dealer, exchange or ATS.
4.3.3	Order Route Supplement	MEORS	Supplement to the Order Route event, optionally used to populate the routeRejectedFlag.
4.3.4	Route Modified Supplement	MEMRS	Supplement to the Route Modified event, optionally used to populate the <i>routeRejectedFlag</i> .
4.3.5	Route Cancelled Supplement	MECRS	Supplement to the Route Cancelled event, optionally used to populate the <i>routeRejectedFlag</i> .
4.3.4	Order Accepted	MEOA	Reported when an Industry Member, including an ATS, accepts a routed order that originated at another broker-dealer.
4.5.1	Order Internal Route Accepted	MEIR	Reported when an order moves within an Industry Member to another desk or other department.
4.5.2	Order Internal Route Modified	MEIM	Reported when an Order Internal Route Accepted was modified.
4.5.3	Order Internal Route Cancelled	MEIC	Reported when an Order Internal Route Accepted was cancelled.
4.5.4	Order Internal Route Modification Request	MEIMR	Reported when a modification to an internal route was requested.
4.5.5	Order Internal Route Cancel	MEICR	Reported when the cancellation of an internal route was requested.

Section	Event	Message Type	Description
	Request		
4.6.1	Child Order	MECO	Reported when an order is sliced within the desk or department it is being worked, and is assigned a new order identifier.
4.6.2	Child Order Modified	MECOM	Reported when a Child Order is modified.
4.6.3	Child Order Cancelled	MECOC	Reported when a Child Order is cancelled.
4.7	Order Modified	MEOM	Reported when changes to the Material Terms of an order are made, or an order is cancel/replaced.
4.7.1	Order Modified Supplement	MEOMS	Supplement to the Order Modified event, used when the Order Modified event exceeds the maximum length allowed, or when the orders being represented are not captured in the Order Modified event.
4.7.2	Order Modification Request	MEOMR	Reported when a request to modify an order is received.
4.8	Order Adjusted	MEOJ	Used to report simple order modifications including changes to the price or quantity of the order.
4.9	Order Cancelled	MEOC	Reported when an Industry Member fully or partially cancels an order.
4.9.1	Order Cancel Request	MEOCR	Reported when a request to cancel an order is received.
4.10.1	New Quote	MENQ	Reported when quotations in equity Eligible Securities are originated that are ultimately sent to a quote display facility, RFQ platform, or quote driven ATS.
4.10.2	New Quote Supplement	MENQS	Supplement to the New Quote event, used when the number of Aggregated Orders included in the askAggregatedOrders or bidAggregatedOrders fields cause the New Quote event to exceed the maximum allowed message length, or when the orders being represented are not captured in the New Quote event.
4.10.3	Routed Quote	MERQ	Reported when quotations in equity Eligible Securities are sent to a quote display facility, RFQ platform, or quote driven ATS.
4.10.4	Routed Quote Supplement	MERQS	Supplement to the Routed Quote event, used when reporting in scenarios where a quote route is rejected by the venue to which it was routed, and the Industry Member chooses to report the quoteRejectedFlag in this separate Routed Quote Supplement event.
4.10.5	Quote Received	MEQR	Reported when a quote is received by an Industry Member.
4.10.6	Quote Cancelled	MEQC	Reported when a quote is cancelled.
4.10.7	Quote Modified	MEQM	Reported when a quote is modified and the venue supports more than one quote per symbol for an Industry Member at one time.
4.10.8	Quote Status	MEQS	Reported when the status of a quote is changed.
4.11.1	Trade	MEOT	Reported by the executing venue where the trade occurred, with details associated with each side of the trade.
4.11.2	Trade Supplement	MEOTS	Reported when there is more than one order associated with one side of a trade.
4.12.1	Order Fulfillment	MEOF	Reported when the execution of a customer/client order is not required to be reported for public dissemination. The event includes details

Section	Event	Message Type	Description
			associated with the customer/client side and firm side.
4.12.2	Order Fulfillment Supplement	MEOFS	Reported when there is more than one representative proprietary order associated with the fill of a customer/client order.
4.12.3	Order Fulfillment Amendment	MEFA	Reports the amendment of a previously reported fulfillment, including the full restatement of the event with applicable changes represented.
4.13.1	Post-Trade Allocation	MEPA	Reported when executed shares are allocated to end customer accounts during post-trade processing.
4.13.2	Amended Allocation	MEAA	Reported when an amendment occurs to a previously reported post-trade allocation.
4.14	Order Effective	MEOE	Reported when an order or an underlying condition of an order becomes effective.

4.1. New Order Event

New Order events represent the beginning of the order lifecycle in CAT. An Industry Member must report a New Order event to CAT when an order is received or originated including:

- New customer orders
- · Representative orders
- Proprietary orders
- Order(s) received from a foreign broker-dealer or affiliate that is not a CAT Reporter.

An order received from another CAT Reporter (US broker-dealer, ATS or an exchange) must be reported as an Order Accepted event.

Representative Orders

Industry Members are required to link representative street-side orders with the related customer order or client order being represented. The Industry Member must report a New Order event for the creation of the representative order, and populate the *representativeInd* field to indicate that it is a representative order. The Industry Member must also populate the *aggregatedOrders* field linking the representative order to the underlying orders.

<u>Appendix C</u> contains detailed descriptions of representative order scenarios and illustrates when marking of the representative order, linkage between the represented order and the representative order, and Order Fulfillment linkage is required.

Table 16: New Order Event Field Specifications

	New Order (MENO)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MENO	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	The internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	eventTimestamp	Timestamp	The date/time of receipt of the order. If <i>manualFlag</i> is 'true', <i>timestamp</i> must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
10	manualFlag	Boolean	Must be marked as 'true' if the order is received or captured manually.	R		
11	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С		
14	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual New Order event, this field is to capture the internal <i>orderID</i> of the manual order. Required when <i>electronicDupFlag</i> is 'true'.	С		
15	deptType	Choice	This is the category of internal department, unit or desk originating or receiving the order.	R		
16	solicitationFlag	Boolean	Indicates if the order was originated in response to an RFQ or other solicitation process.	R		

Seq#	Field Name	Data Type	Description This field is not used to indicate if a registered	Include Key
17	RFQID			
17	RFQID		representative of the firm solicited a customer/client order.	
		Text (64)	For New Order events representing a response to an RFQ or solicitation, the ID assigned to the related RFQ or solicitation being responded to. Also, applicable when an order is being generated following the selection by a Solicitor of a winning responder of an RFQ. Must be populated when available.	С
18	side	Choice	The side of the order.	R
19	price	Price	The limit price of the order. When provided, must be greater than or equal to zero.	С
			Required when <i>orderType</i> is 'LMT'.	
			Must be blank when <i>orderType</i> is 'MKT'.	
20	quantity	Real Quantity	The order quantity.	R
21	minQty	Whole Quantity	The minimum quantity of an order to be executed, required when applicable.	С
22	orderType	Choice	The type of order being submitted.	R
23	timeInForce	Name/Value Pairs	The Time in Force for the order.	R
24	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
25	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С
26	custDspIntrFlag	Boolean	Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed.	R
27	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R
28	accountHolderType	Choice	Represents the type of beneficial owner of the account for which the order was received or originated.	R
29	affiliateFlag	Boolean	Indicates if the routing party is an affiliate of the Industry Member.	R
30	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С
31	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being represented. Refer to Appendix C for representative order linkage requirements.	С

For each order being represented n, the following values are required.

New Order (MENO)						
Seq#	Field Name	Data Type	Description	Include Key		
31. <i>n</i> .1	orderID	Text (64)	orderID of the order being represented.	R		
31. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being represented.	R		
31. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being represented.	С		
31. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
Aggrega	ated Orders – End					
32	negotiatedTradeFlag	Boolean	Indicates whether the trade is a result of a negotiation.	R		
33	representativeInd	Choice	Indicates if the order is a representative order and if linkage is required.	R		
34	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. Only required for ATSs.	А		
35	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	Α		
36	displayPrice	Price	The displayed price for this order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be "0".	A		
37	workingPrice	Price	The working price of the order at the time it was accepted. When provided, must be greater than or equal to zero. If no current workingPrice, value must be "0".	А		
38	displayQty	Whole Quantity	The displayed quantity for this order. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the atsDisplayInd is 'N', displayQty must be '0'.	A		
39	atsOrderType	Array	Shows the ATS-specific order type as selected from a list of order types defined by this reporter via the CAT Reporter Portal.	А		
40	nbbPrice	Price	The NBBO at the moment the order was originated	Α		
41	nbbQty	Whole Quantity	or received. Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be	Α		
42	nboPrice	Price	populated with a value of '0'.	Α		
43	nboQty	Whole Quantity		Α		
44	nbboSource	Choice	Source of the NBBO data used. If nbboSource is	А		

	New Order (MENO)					
Seq#	Field Name	Data Type	Description	Include Key		
			'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.			
45	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	A		
46	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		
47	BFMMFlag	Boolean	Identifies if a Short Sale order event relies on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO. Only applicable to Market Makers on security-by-security basis.	С		
			When populated with a value of true, the <i>side</i> field must be populated with the value of 'SS' or 'SX' and the <i>accountHolderType</i> field value must be 'O'.			

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, symbol, aggregatedOrders.orderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, symbol, manualOrderID

4.2. New Order Supplement Event

The New Order Supplement event is a supplement to the New Order event. One New Order event can have multiple New Order Supplement events. Multiple New Order Supplement events are considered as additions, not replacements or modifications. This event accommodates reporting in the following scenarios:

Aggregated Orders

This event accommodates reporting in scenarios when the number of Aggregated Orders included in the aggregatedOrders field causes the New Order event to exceed the maximum allowed message length, or when the orders being represented are not captured in the New Order Event. The aggregatedOrders field in the New Order Supplement event must contain the additional Aggregated Orders that were not captured in the original New Order event, or another Supplement event for the same order.

FDID

This event accommodates reporting in scenarios when an Industry Member receives an order for a new account and the new account number, on which the FDID is based, is not yet available for creation and reporting of the CAT new order event. If an FDID has not yet been created when an order has been received, the Industry Member must populate the *firmDesignatedID* field in its New Order event with a value of 'PENDING'.

Once the FDID becomes available, the Industry Member must report the actual FDID in the *firmDesignatedID* field in a New Order Supplement event. Any New Order Supplement event with an FDID populated will not be considered late for CAT reporting purposes if it is received by T+3 @ 8:00 AM ET. Refer to the <u>CAT CAIS Industry Member Reporting Scenarios</u> for additional information on how the *firmDesignatedID* will be reflected in the CAIS.

Table 17: New Order Supplement Event Field Specifications

	New Order Supplement (MENOS)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MENOS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related New Order event which this event is supplementing.	R		
7	orderID	Text (64)	The <i>orderID</i> of the related New Order event which this event is supplementing.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time of the related New Order event which this event supplements (including scenarios in which the	R		

New Order Supplement (MENOS)				
Seq#	Field Name	Data Type	Description	Include Key
			supplement is created at a later time).	
11	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being represented. Refer to Appendix C for representative order linkage requirements.	С
Aggreg	ated Orders – Start			
For eac	h order being represe	ented n, the follo	owing values are required.	
11. <i>n</i> .1	orderID	Text (64)	orderID of the order being represented.	R
11. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being represented.	R
11. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being represented.	С
11.n.4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
Aggreg	Aggregated Orders – End			
12	firmDesignatedID	Text (40)	Required when reporting a supplement to an MENO event that was reported prior to the FDID being available. Refer to Appendix G: Data Dictionary for definition and	С
			guidance for populating this field.	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, symbol, aggregatedOrders.orderID

4.3. Order Route Event

Industry Members are required to report an Order Route event to CAT in the following scenarios when an order is routed in full or in part:

- Routing to another Industry Member
- Routing to foreign broker-dealers
- Routing to exchanges
- Routing between two IMIDs (e.g., two different FINRA MPIDs) attributed to the same legal entity (i.e., the same CRD).

When routing between two IMIDs of the same legal entity, the *affiliateFlag* must be populated as 'true' in accordance with <u>CAT FAQ E27</u>. Internal routes to another desk or department within an Industry Member are reported using an Order Internal Route Accepted event. Refer to the <u>Order Internal Route Accepted</u> section for more details.

Handling Instructions on Order Route Events

Handling Instructions are required to be reported on the Order Route event. The handling instructions included in this event must represent the handling instructions sent by the routing firm to the receiving destination. If the handling instructions do not change when the order is routed externally from the handling instructions received by the Industry Member and reported on the Order Accepted or New Order event associated with the order, Industry Members may use the *handlingInstructions* value 'RAR' (Routed as Received) instead of repeating each individual handling instruction.

Table 18: Order Route Event Field Specifications

	Order Route (MEOR)			
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEOR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The orderKeyDate of the event which is being routed.	R
7	orderID	Text (64)	The orderID of the order event which is being routed.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time of the Order Route. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If	R

Order Route (MEOR)

	Order Route (MEOR)				
Seq #	Field Name	Data Type	Description	Include Key	
			manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.		
11	manualFlag	Boolean	Must be marked as 'true' if the order is routed manually.	R	
12	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R	
13	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
14	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the order, known by the <i>destination</i> .	С	
			When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination.		
			When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order Accepted event is reported by the destination.		
			When <i>destinationType</i> is 'E', this value must equal the <i>routingParty</i> reported by the exchange on the Participant Order Accepted event.		
			Not required when destinationType is 'N'.		
15	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member.	С	
			When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member.		
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange.		
			Not required if <i>destinationType</i> is 'N'. If optionally populated when <i>destinationType</i> is 'N', CRD Prefix is not required.		
16	destinationType	Choice	Indicates whether the <i>destination</i> of the route is an Industry Member, an exchange or a foreign brokerdealer.	R	
			destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.		
17	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the order to the destination. This value must match the value for <i>routedOrderID</i> reported by the destination in their Order Accepted report.	С	
			Must be unique per combination of Event Date, symbol, destination, senderIMID, and session		

Order Route (MEOR)

			ı ,	
Seq #	Field Name	Data Type	Description	Include Key
			(applicable only on routes to exchanges). Required when destinationType is 'F', 'E', or 'O', and manualFlag is 'false'.	
18	session	Text (40)	The session ID used when routing the order.	С
. •			Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.	
19	side	Choice	The side of the order.	R
20	price	Price	The limit price of the order. When provided, must be greater than or equal to zero.	С
			Required when <i>orderType</i> is 'LMT'.	
04		DI Otit	Must be blank when orderType is 'MKT'.	Б
21	quantity	Real Quantity	The order quantity.	R
22	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С
23	orderType	Choice	The type of order being routed.	R
24	timeInForce	Name/Value Pairs	The Time in Force for the order.	R
25	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
26	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate of the Industry Member.	R
27	isoInd	Choice	Indicates the order was routed as an Intermarket Sweep Order.	R
28	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С
29	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R
30	dupROIDCond	Boolean	Indicates when a modification to an order previously routed to a national securities exchange requires the use of the original <i>routedOrderID</i> . This field can only be populated as 'true' on Order Route events when destinationType is 'E'.	R
31	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A
32	multiLegInd	Boolean	Indicates when the order being routed is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R
33	pairedOrderID	Text (64)	The <i>pairedOrderID</i> field may be populated if two or more offsetting orders are routed with instructions to cross.	0
34	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in	С

	Order Route (MEOR)				
Seq #	Field Name	Data Type	Description	Include Key	
			place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.		
35	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	O	
36	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned. Required when <i>quoteID</i> is populated. Must be blank when <i>quoteID</i> is blank.	С	
37	quoteID	Text (64)	Required for Order Route events reported by an IDQS directed to a specific quote displayed on the IDQS, this is the IDQS assigned <i>quoteID</i> of the related Quote Received event reported by the IDQS.	С	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Route Linkage Key: Event Date, senderIMID, destination, symbol, session, routedOrderID
- IDQS Linkage Key: quoteKeyDate, CATReporterIMID, destination, symbol, quoteID

4.3.1. Route Modified Event

Industry Members must report a Route Modified event to CAT when the Material Terms of a route have been changed (e.g., price, quantity), or when a route is cancel/replaced.

All attributes and Material Terms of the route listed on this event must be restated with the modification(s) reflected. The *side* field is required to be reported, but side adjustments are only allowed for same-side changes, including changes between Short Sale and Sell Long. Route Modified events must not be used to reflect a change in *senderIMID*, *destination*, or *destinationType*. These changes must be reflected as a Route Cancelled event followed by a new Order Route event.

The *routedOrderID* of the Order Route event being modified must be reflected in the Route Modified event. If the *routedOrderID* changed when the route was modified, the *routedOrderID* of the Order Route event being modified must be populated in the *priorRoutedOrderID* field. If the *routedOrderID* did not change when the route was modified, the *routedOrderID* of the Order Route event must be populated in the *routedOrderID* field, and the *dupROIDCond* must be populated as 'true'.

If a route modification request is rejected by the destination venue, the Route Modified event must be reported with a *routeRejectedFlag* of true.

Table 19: Route Modified Event Field Specifications

Route Modified (MEMR)

0				la alcala
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEMR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the route which is being modified.	R
7	orderID	Text (64)	The <i>orderID</i> of the route which is being modified or the <i>orderID</i> of the immediately preceding Order Modified event.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С
10	eventTimestamp	Timestamp	The date/time of the route modification. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the route is modified manually.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the modification, known by the <i>destination</i> . Must equal the <i>senderIMID</i> on the Order Route event being modified.	С
			When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event	

Route Modified ((MEMR)
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Seq #	Field Name	Data Type	Description	Include Key
			reported by the destination. When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order Accepted event is reported by the destination.	
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event. Not required when destinationType is 'N'.	
14	destination	Industry Member ID / Exchange ID	The destination of the route modification. Must equal the destination on the Order Route event being modified. When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member. When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange. Not required if destinationType is 'N'.	С
15	destinationType	Choice	Indicates whether the <i>destination</i> of the route modification is an Industry Member, an exchange or a foreign broker-dealer. Must equal the <i>destinationType</i> on the Order Route event being modified. destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.	R
16	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the modification to the <i>destination</i> . When <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges). Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.	С
17	priorRoutedOrderID	Text (64)	The routedOrderID of the Order Route event being modified if the routedOrderID changed when the modification was routed to the destination. Must be populated when routedOrderID is populated and dupROIDCond is 'false'. Must be blank when dupROIDCond is 'true'	С
18	session	Text (40)	The session ID used when routing the modification. Must be equal to the session on the Order Route event being modified	С

Route Modified (MEMR)

Seq #	Field Name	Data Type	Description	Include Key	
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.		
19	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell).	R	
20	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С	
21	quantity	Real Quantity	The order quantity.	R	
22	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С	
23	retiredFieldPosition		Field position is retired and must remain blank.		
24	orderType	Choice	The type of order being routed.	R	
25	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
26	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
27	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate of the Industry Member.	R	
28	isoInd	Choice	Indicates the order was routed as an Intermarket Sweep Order.	R	
29	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
30	routeRejectedFlag	Boolean	Indicates the route modification was not accepted by the <i>destination</i> (rejected or no response) when marked 'true'.	R	
31	dupROIDCond	Boolean	Indicates when a modification to a route maintains the original <i>routedOrderID</i> .	R	
32	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A	
33	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	
34	multiLegInd	Boolean	Indicates the route modification is related to a multileg order event. Refer to Section 5.2 for additional guidance.	R	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Route Linkage Key: Event Date, senderIMID, destination, symbol, session, routedOrderID

4.3.2. Route Cancelled Event

Industry Members must report a Route Cancelled event to CAT when a route has been fully or partially cancelled. Partial cancellations of a route may be reported to CAT using a Route Cancelled event or a Route Modified event. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

The *routedOrderID* of the Order Route event being cancelled must be reflected in the Route Cancelled event. If a route cancellation request is rejected by the destination venue, the Route Cancelled event must be reported with a *routeRejectedFlag* of 'true'.

Table 20: Route Cancelled Event Field Specifications

	Route Cancelled (MECR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MECR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	orderKeyDate	Timestamp	The orderKeyDate of the route which is being cancelled.	R	
7	orderID	Text (64)	The <i>orderID</i> of the route which is being cancelled or the <i>orderID</i> of the immediately preceding Order Modified event.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	originatingIMID	CAT Reporter	An identifier used in instances of a merger or	С	

Route Cancelled (MECR)

		1.00	ite Cancelled (MECR)	
Seq #	Field Name	Data Type	Description	Include Key
		IMID	acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	
10	eventTimestamp	Timestamp	The date/time of the route cancellation. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the route being cancelled was a manual route.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R
14	retiredFieldPosition		Field position is retired and must remain blank.	
15	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the cancellation, known by the destination. Must equal the senderIMID in the Order Route event being cancelled. When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination. When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order Accepted event is reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event. Not required when destinationType is 'N'.	С
16	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the destination in the Order Route event being cancelled, and must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member. When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange. Not required if destinationType is 'N'.	С
17	destinationType	Choice	Indicates whether the destination of the original	R

	Route Cancelled (MECR)					
Seq #	Field Name	Data Type	Description	Include Key		
			Order Route event was an Industry Member, an exchange or a foreign broker-dealer. destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.			
18	routedOrderID	Text (64)	The ID assigned to the Order Route event being cancelled. This value must match the value for routedOrderID reported by the destination in their Order Accepted report.	С		
			Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.			
19	session	Text (40)	The session ID used when routing the order. Must equal the session in the Order Route event being cancelled.	С		
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.			
20	routeRejectedFlag	Boolean	Indicates the route cancellation was not accepted by the <i>destination</i> (rejected or no response) when marked 'true'.	R		
21	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
22	multiLegInd	Boolean	Indicates the route modification is related to a multileg order event. Refer to Section 5.2 for additional guidance.	R		

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.3.3. Order Route Supplement Event

The Order Route Supplement event is a supplement to the Order Route event. Order Route Supplement events are considered as additions to an Order Route event, not replacements or modifications. This event accommodates reporting in scenarios where a route is rejected by the venue to which an order was routed, and the Industry Member chooses to report the *routeRejectedFlag* in this separate Order Route Supplement event.

An Order Route Supplement event may not be used to supplement an Order Route event where the dupROIDCond field is 'true'. These supplement events will be accepted by CAT, but credit will not be provided to any exchange linkage errors on the Order Route event where the dupROIDCond field is 'true'.

Table 21: Order Route Supplement Event Field Specifications

Order Route Supplement (MEORS) Include Seq Field Name **Data Type Description** Key Indicates whether the event is a new event, a firm R actionType Choice initiated correction or a repair of a CAT error. 2 errorROEID Required when actionType is 'RPR'. Must be blank when С Unsigned actionType is 'NEW'. 3 An identifier assigned to the record by the reporting firm. firmROEID R Text (64) Formatted as <Event Date> <firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. 4 Message **MEORS** R type Type 5 CATReporterIMID **CAT Reporter** The SRO-assigned identifier that an Industry Member O **IMID** uses to report to CAT. If populated, must equal the CATReporterIMID in the filename. R 6 orderKeyDate Timestamp The orderKeyDate of the related Order Route event this event is supplementing. 7 orderID Text (64) The orderID of the related Order Route event which this R event is supplementing. 8 symbol Symbol The symbol of the stock in the symbology of the primary R listing exchange or FINRA for OTC Equity Securities. 9 С originatingIMID **CAT Reporter** An identifier used in instances of a merger or acquisition IMID where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. The date/time of the related Order Route event this event 10 eventTimestamp R Timestamp supplements (including scenarios in which the supplement is created at a later time). The manualFlag of the related Order Route event this 11 Boolean R manualFlag event supplements. Must be marked as 'true' if the order is routed manually. 12 senderIMID Industry The senderIMID of the Order Route event that this event Member ID supplements. When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination. When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order Accepted event is reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event. Not required when destinationType is 'N'. 13 destination Industry The destination of the Order Route event that this event Member ID / supplements.

	Order Route Supplement (MEORS)					
Seq #	Field Name	Data Type	Description	Include Key		
		Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member.			
			When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member.			
			When <i>destinationType</i> is 'E', this value is the Exchange ID of the destination exchange, and it must equal the <i>exchange</i> field on the Order Accepted event reported by the destination exchange.			
			Not required if destinationType is 'N'.			
14	destinationType	Choice	The destinationType of the Order Route event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	R		
			destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.			
15	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the order to the destination. Must match the routedOrderID of the Order Route event that this event supplements.	C		
			Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.			
16	session	Text (40)	The session of the Order Route event that this event supplements.	С		
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.			
17	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R		

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Route Linkage Key: Event Date, senderIMID, destination, symbol, session, routedOrderID

4.3.4. Route Modified Supplement Event

The Route Modified Supplement event is a supplement to the Route Modified event. Route Modified Supplement events are considered as additions to a Route Modified event, not replacements or modifications. This event accommodates reporting in scenarios where a route modification is rejected by the venue to which the route modification was sent, and the Industry Member chooses to report the routeRejectedFlag in this separate Route Modified Supplement event.

A Route Modified Supplement event may not be used to supplement a Route Modified event where the *dupROIDCond* field is 'true'. These supplement events will be accepted by CAT, but credit will not be provided to any exchange linkage errors on the Route Modified event where the *dupROIDCond* field is 'true'.

Table 22: Route Modified Supplement Event Field Specifications

	Route Modified Supplement (MEMRS)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEMRS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related Route Modified event this event is supplementing.	R		
7	orderID	Text (64)	The <i>orderID</i> of the related Route Modified event which this event is supplementing.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time of the related Route Modified event this event supplements (including scenarios in which the supplement is created at a later time).	R		
11	manualFlag	Boolean	The manualFlag of the related Route Modified event this event supplements. Must be marked as 'true' if the route modification was sent manually.	R		
12	senderIMID	Industry Member ID	The senderIMID of the Route Modified event that this event supplements. When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination. When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order	С		

Route Modified Supplement (MEMRS)					
Seq #	Field Name	Data Type	Description	Include Key	
			Accepted event is reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event. Not required when destinationType is 'N'.		
13	destination	Industry Member ID / Exchange ID	The destination of the Route Modified event that this event supplements. When destinationType is 'F', this value is the IMID used	С	
			to identify the Industry Member that is receiving this routed order, and it must equal the <i>receiverIMID</i> field on the Order Accepted event reported by the destination Industry Member.		
			When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member.		
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange.		
			Not required if destinationType is 'N'.		
14	destinationType	Choice	The destinationType of the Route Modified event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	R	
			destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.		
15	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when sending the route modification to the destination. Must match the <i>routedOrderID</i> of the Route Modified event that this event supplements.	С	
			Required when destinationType is 'F', 'E', or 'O', and manualFlag is 'false'.		
16	session	Text (40)	The session of the Route Modified event that this event supplements.	С	
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.		
17	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R	
18	multiLegInd	Boolean	Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Route Linkage Key: Event Date, senderIMID, destination, symbol, session, routedOrderID

4.3.5. Route Cancelled Supplement Event

The Route Cancelled Supplement event is a supplement to the Route Cancelled event. Route Cancelled Supplement events are considered as additions to a Route Cancelled event, not replacements or modifications. This event accommodates reporting in scenarios where a route cancellation is rejected by the venue to which the route cancellation was sent, and the Industry Member chooses to report the routeRejectedFlag in this separate Route Cancellation Supplement event.

A Route Cancellation Supplement event may not be used to supplement a Route Cancelled event where the *dupROIDCond* field is 'true'. These supplement events will be accepted by CAT, but while Route Cancelled events are not subject to exchange linkage, Route Cancelled events where the *dupROIDCond* field is 'true' will not be considered supplemented.

Table 23: Route Cancelled Supplement Event Field Specifications

	Route Cancelled Supplement (MECRS)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MECRS	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related Route Cancelled event this event is supplementing.	R	
7	orderID	Text (64)	The <i>orderID</i> of the related Route Cancelled event which this event is supplementing.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time of the related Route Cancelled event this event supplements (including scenarios in which the supplement is created at a later time).	R	

Route Cancelled Supplement (MECRS)

	Route Sunsened Supplement (MESRS)				
Seq #	Field Name	Data Type	Description	Include Key	
11	manualFlag	Boolean	The manualFlag of the related Route Cancelled event this event supplements. Must be marked as 'true' if the route cancellation was sent manually.	R	
12	senderIMID	Industry Member ID	The senderIMID of the Route Cancelled event that this event supplements.	С	
			When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the destination.		
			When destinationType is 'O', this value must equal the senderIMID on the Order Accepted event if an Order Accepted event is reported by the destination.		
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event.		
			Not required when destinationType is 'N'.		
13	destination	Industry Member ID /	The <i>destination</i> of the Route Cancelled event that this event supplements.	С	
		Exchange ID	When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the <i>receiverIMID</i> field on the Order Accepted event reported by the destination Industry Member.		
			When destinationType is 'O', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event if an Order Accepted event is reported by the destination Industry Member.		
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange.		
			Not required if destinationType is 'N'.		
14	destinationType	Choice	The destinationType of the Route Cancelled event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	R	
			destinationType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.		
15	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when sending the route cancellation to the destination. Must match the <i>routedOrderID</i> of the Route Cancelled event that this event supplements.	С	
			Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.		
16	session	Text (40)	The session of the Route Cancelled event that this event supplements.	С	
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.		

	Route Cancelled Supplement (MECRS)				
Seq #					
17	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R	
18	multiLegInd	Boolean	Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R	

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.4. Order Accepted Event

An Order Accepted event must be reported to CAT when an Industry Member receives an order from another CAT Reporter (i.e., Industry Member, ATS or exchange), or from another IMID belonging to the same Industry Member (i.e., the same CRD).

New customer orders, orders received from a non-broker-dealer affiliate, and orders received from a non-reporting foreign broker-dealer must be reported using a New Order event.

Table 24: Order Accepted Event Field Specifications

	Order Accepted (MEOA)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""></firm></event>	R		
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MEOA	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	Order ID assigned to the order by the Industry Member upon acceptance. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity	R		

	Order Accepted (MEOA)				
Seq #	Field Name	Data Type	Description	Include Key	
			Securities.		
9	eventTimestamp	Timestamp	The date/time of receipt of the order. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
10	manualFlag	Boolean	Must be marked as 'true' if the order is received or captured manually.	R	
11	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R	
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
13	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the order. When senderType is 'F', this value must equal the destination field on the Order Route event reported by the routing Industry Member. When senderType is 'O', this value must equal the destination on the Order Route event if an Order Route event is reported by the destination. When senderType is 'E', this value must equal the	R	
			routingParty on the Order Route event reported by the exchange.		
14	senderIMID	Industry Member ID / Exchange ID	When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal senderIMID in the Order Route event reported by the routing Industry Member.	R	
			When senderType is 'O', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the senderIMID in the Order Route event if an Order Route event is reported by the routing Industry Member.		
			When senderType is 'E', this value is the Exchange ID of the sending entity from which the order is routed, and must equal the exchange field in the Order Route event reported by the exchange.		
15	senderType	Choice	Indicates the type of origin from which the order is routed.	R	
			senderType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.		
16	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, symbol, senderIMID, and receiverIMID. Required when manualFlag is 'false'.	С	
17	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С	
18	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Order	С	

Piold Name Data Type Description Accepted event, this field is to capture the internal order ID of the manual order, Required when electronicDupFlag is true'.			Ord	er Accepted (MEOA)	
artifiliateFilag Boolean Indicates if the routing party is an affiliate of the Industry Member. R		Field Name	Data Type	Description	Include Key
Industry Member. Industry Member.				order ID of the manual order. Required when	
desk receiving the order. Side Choice The side of the order. R	19	affiliateFlag	Boolean		R
Price The limit price of the order. When provided, must be greater than or equal to zero. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'. Real Quantity The order quantity. Real Quantity The minimum quantity of an order to be executed. Required when applicable. ConderType Choice The type of order as routed to the destination reporting the accepted event. Required when applicable. The Time in Force for the order. Required when applicable. Reporting the accepted event. Required when applicable. Re	20	deptType	Choice		R
greater than or equal to zero. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'. 23 quantity Real Quantity The order quantity. Re minQty Whole Quantity The minimum quantity of an order to be executed. Required when applicable. C Required when applicable. C Required when applicable. R reporting the accepted event. R reporting the accepted to the destination event accepted to the accepted the accepted to the accepted to the accepted to the accepted the	21	side	Choice	The side of the order.	R
MinQty Whole Quantity The minimum quantity of an order to be executed. Required when applicable. C	22	price	Price	greater than or equal to zero. Required when <i>orderType</i> is 'LMT'.	С
Required when applicable. 25 orderType Choice The type of order as routed to the destination reporting the accepted event. 26 timeInForce Name/Value Pairs The Time in Force for the order. 27 tradingSession Choice The trading session(s) during which an order is eligible to trade. 28 isoInd Choice Indicates the order was accepted as an Intermarket Sweep Order. 29 handlingInstructions Name/Value Pairs The order handling instructions for the order. 29 custDspIntrFlag Boolean Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed or that a block size order should be displayed or that a block size order should be displayed or that a block size order should be displayed or that a block size order should be displayed. 31 infoBarrierID Text (20) Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. 32 seqNum Alphanumeric (40) The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. 33 atsDisplayInd Choice Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. 34 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed.	23	quantity	Real Quantity	The order quantity.	R
reporting the accepted event. The time in Force for the order. R	24	minQty	Whole Quantity		С
tradingSession Choice The trading session(s) during which an order is eligible to trade. R lisolnd Choice Indicates the order was accepted as an Intermarket Sweep Order. Indicates the order handling instructions for the order. Choice Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed. InfoBarrierID Text (20) Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. SeqNum Alphanumeric Alphanumeric (40) Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed. Choice Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. A to subscribers only, or via publicly disseminated quotation data. The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	25	orderType	Choice		R
eligible to trade. 28 isolnd Choice Indicates the order was accepted as an Intermarket Sweep Order. 29 handlingInstructions Name/Value Pairs The order handling instructions for the order. 30 custDspIntrFlag Boolean Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed. 31 infoBarrierID Text (20) Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. 32 seqNum Alphanumeric (40) The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. 33 atsDisplayInd Choice Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. 34 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	26	timeInForce	1	The Time in Force for the order.	R
Sweep Order. 29 handlingInstructions Name/Value Pairs The order handling instructions for the order. 30 custDspIntrFlag Boolean Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed. 31 infoBarrierID Text (20) Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. 32 seqNum Alphanumeric (40) The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. 33 atsDisplayInd Choice Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. 34 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	27	tradingSession	Choice		R
Pairs Pairs	28	isoInd	Choice		R
limit order should not be displayed or that a block size order should be displayed. Text (20) Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. Alphanumeric (40) The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. AlisplayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	29	handlingInstructions		The order handling instructions for the order.	С
place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter. 32 seqNum Alphanumeric (40) The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter. 33 atsDisplayInd Choice Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. 4 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	30	custDspIntrFlag	Boolean	limit order should not be displayed or that a block	R
the ATS's matching engine. Any alphanumeric not containing a delimiter. 33 atsDisplayInd Choice Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. 34 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	31	infoBarrierID	Text (20)	place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a	С
to subscribers only, or via publicly disseminated quotation data. 34 displayPrice Price The displayed price for the order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	32	seqNum		the ATS's matching engine. Any alphanumeric not	A
must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be '0'.	33	atsDisplayInd	Choice	to subscribers only, or via publicly disseminated	A
35 workingPrice Price The working price of the order at the time it was A	34	displayPrice	Price	must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed.	A
	35	workingPrice	Price	The working price of the order at the time it was	A

	Order Accepted (MEOA)					
Seq #	Field Name	Data Type	Description	Include Key		
			accepted. When provided, must be greater than or equal to zero. If no current workingPrice, value must be '0'.			
36	displayQty	Whole Quantity	The displayed quantity of the order. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the atsDisplayInd is 'N', displayQty must be '0'.	A		
37	atsOrderType	Array	Shows the ATS-specific order type as selected from a list of order types defined by this Industry Member via the CAT Reporter Portal.	А		
38	nbbPrice	Price	The NBBO at the moment the order was received.	Α		
39	nbbQty	Whole Quantity	Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be populated with a value of '0'.	Α		
40	nboPrice	Price		А		
41	nboQty	Whole Quantity		Α		
42	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A		
43	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	А		
44	solicitationFlag	Boolean	Indicates if the order was received in response to an RFQ or other solicitation process. This field is not used to indicate if a registered representative of the firm solicited a customer/client order.	R		
45	pairedOrderID	Text (64)	The <i>pairedOrderID</i> field may be populated if two or more offsetting orders are received with instructions to cross.	0		
46	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to			

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Route Linkage Key: Event Date, senderIMID, receiverIMID, symbol, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, symbol, manualOrderID

4.5. Order Internal Route Accepted

An Order Internal Route Accepted event must be reported when an order is passed to a different department or desk within the *CATReporterIMID*. Routes between different IMIDs attributed to the same Industry Member must be reported as Order Route and Order Accepted events.

An Order Internal Route Accepted event is required to be reported from the perspective of the recipient desk, and indicates that an order was received by an internal destination. In Phase 2d, Industry Members may choose to assign a new Order Key to an Order Internal Route Accepted event. If a new *orderID* is assigned, the *parentOrderID* must be populated with the *orderID* of the event that was internally routed, and the *parentOrderKeyDate* must be populated.

An Industry Member may generate child orders using the Child Order event prior to routing internally to another desk. This approach is acceptable for CAT reporting and will not result in unlinked events.

4.5.1. Order Internal Route Accepted Event

Table 25: Order Internal Route Accepted Event Field Specifications

	Order Internal Route Accepted (MEIR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEIR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination. When a new Order Key is not assigned, the orderID of	R		
			the event that was internally routed.			
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	parentOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the	С		

	Order Internal Route Accepted (MEIR)					
Seq #	Field Name	Data Type	Description	Include Key		
			orderKeyDate of the event from which the Order Internal Route Accepted event originated. Required when the parentOrderID is populated. Must be blank when parentOrderID is blank.			
10	parentOrderID	Text (64)	If a new Order ID has been assigned, this is the orderID of the event from which the Order Internal Route Accepted event originated. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination. When populated, the parentOrderID must not be equal to the orderID within the record.	С		
			Required when the <i>parentOrderKeyDate</i> is populated. If a new Order ID has not been assigned, must be blank.			
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
12	eventTimestamp	Timestamp	The date/time of receipt by the receiving desk. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	manualFlag	Boolean	Must be marked as 'true' if the order is routed to another desk manually.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	deptType	Choice	The category of department, unit, or desk that received this Order Internal Route Accepted event.	R		
16	receivingDeskType	Choice	Indicates the type of desk or department receiving the order. More granular than the field deptType.	R		
17	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for the desk to which the order was routed that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		
18	side	Choice	The side of the order.	R		
19	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
20	quantity	Real Quantity	The order quantity.	R		
21	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С		
22	orderType	Choice	The type of order received from the routing desk or	R		

	Order Internal Route Accepted (MEIR)				
Seq #	Field Name	Data Type	Description	Include Key	
			department.		
23	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
24	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
25	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
26	multiLegInd	Boolean	Indicates when the order that was routed internally is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R	
27	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	
28	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Parent Order Key: parentOrderKeyDate, CATReporterIMID, symbol, parentOrderID

4.5.2. Order Internal Route Modified Event

Industry Members must report an Order Internal Route Modified event to CAT when the Material Terms of the internal route have been changed (e.g., price, quantity). All attributes and Material Terms of the modified internal route listed on this event must be restated with the modification(s) reflected.

Industry Members may assign a new Order Key to Order Internal Route Modified events. If a unique orderID is assigned, the priorOrderID must be populated with the orderID of the Order Internal Route Accepted event that is being modified, and the priorOrderKeyDate must be populated.

Table 26: Order Internal Route Modified Event Field Specifications

		Order	Internal Route Modified (MEIM)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEIM	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the order that was internally routed.	R
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination. When a new Order Key is not assigned, the orderID of the event that was internally routed.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being modified.	С
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the event being modified. When populated, the <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record.	С
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С
12	eventTimestamp	Timestamp	The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
13	manualFlag	Boolean	Must be marked as 'true' if the internal route is modified manually.	R

	Order Internal Route Modified (MEIM)					
Seq #	Field Name	Data Type	Description	Include Key		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	deptType	Choice	The category of department, unit, or desk that received the internal route.	R		
16	receivingDeskType	Choice	Indicates the type of desk that received the internal route. More granular than the field <i>deptType</i> .	R		
17	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for the desk to which the order was routed that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		
18	initiator	Choice	Indicates who initiated the internal route modification.	R		
19	side	Choice	The side of the order.	R		
20	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
21	quantity	Real Quantity	The order quantity.	R		
22	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С		
23	leavesQty	Real Quantity	The number of shares of the order left open at the receiving desk after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R		
24	orderType	Choice	The type of order received from the routing desk or department.	R		
25	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
26	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
27	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
28	requestTimestamp	Timestamp	The date/time the internal route modification was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MEIMR event. Must not be populated if the request is captured in a separate MEIMR event.	С		
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
29	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is	С		

	Order Internal Route Modified (MEIM)				
Seq #	Field Name	Data Type	Description	Include Key	
			populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to <u>CAT FAQ B71</u> for additional information.		
30	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С	
			Required when the order is routed partially and a new orderID is not assigned to this event.		
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.		
31	priorDeskOrderID	Text (64)	If a new deskOrderID has been assigned, this is the deskOrderID of the event being modified. When populated, the priorDeskOrderID must not be equal to the deskOrderID.	С	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, symbol, priorOrderID

4.5.3. Order Internal Route Cancelled Event

If an internal route is cancelled, an Order Internal Route Cancelled event must be reported. Partial cancellations may be reported using an Order Internal Route Modified event or Order Internal Route Cancelled event with *leavesQty*.

Table 27: Order Internal Route Cancelled Event Field Specifications

	Order Internal Route Cancelled (MEIC)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEIC	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		

	Order Internal Route Cancelled (MEIC)					
Seq #	Field Name	Data Type	Description	Include Key		
6	orderKeyDate	Timestamp	The orderKeyDate of the internal route which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the internal route which is being cancelled.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time the internal route was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the order is cancelled manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	leavesQty	Real Quantity	The number of shares of the order left open at the receiving desk after the modification has occurred.	R		
15	initiator	Choice	Indicates who initiated the internal route cancellation.	R		
16	requestTimestamp	Timestamp	The date/time the internal route cancellation was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MEICR event.	С		
			Must not be populated if the request is captured in a separate MEICR event.			
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
17	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		
18	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С		
			Required when the order is routed partially and a new orderID is not assigned to this event.			
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.			

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.5.4. Order Internal Route Modification Request Event

Industry Members must report an Order Internal Route Modification Request event to CAT when a desk within the firm receives a request to modify the Material Terms of an internal route if the request is not captured in the *requestTimestamp* field of the Order Internal Route Modified event. All attributes and Material Terms of the modified internal route listed on this event must be restated with the requested modification(s) reflected.

Table 28: Order Internal Route Modification Request Event Field Specifications

	Order Internal Route Modification Request (MEIMR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEIMR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the order event for which the internal route modification was requested.	R	
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the internal route modification was requested.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С	
10	eventTimestamp	Timestamp	The date/time the internal route modification request was received. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	

	Order Internal Route Modification Request (MEIMR)					
Seq #	Field Name	Data Type	Description	Include Key		
11	manualFlag	Boolean	Must be marked as 'true' if the internal route modification was requested manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	deptType	Choice	The category of department, unit, or desk that received the internal route modification request.	R		
14	receivingDeskType	Choice	Indicates the type of desk that received the internal route modification request. More granular than the field deptType.	R		
15	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for the desk to which the order was routed that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		
16	side	Choice	The side of the order.	R		
17	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
18	quantity	Real Quantity	The order quantity.	R		
19	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С		
20	retiredFieldPosition		Field position is retired and must remain blank.			
21	orderType	Choice	The type of order received from the routing desk or department.	R		
22	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
23	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
24	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
25	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		
26	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С		

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.5.5. Order Internal Route Cancel Request Event

Industry Members must report an Order Internal Route Cancel Request event to CAT when a desk within the firm receives a request to cancel an internal route if the request is not captured in the requestTimestamp field of the Order Internal Route Cancelled event.

Table 29: Order Internal Route Cancel Request Event Field Specifications

		Order Inter	rnal Route Cancel Request (MEICR)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEICR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The orderKeyDate of the order event for which the cancellation was requested.	R
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the cancellation was requested.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time the internal route cancellation request was received. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the cancel request was received manually.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required	С

	Order Internal Route Cancel Request (MEICR)				
Seq #	Field Name	Data Type	Description	Include Key	
			when <i>manualFlag</i> is 'true' and the event is systematized.		
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R	
14	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С	
			Required when the order is routed partially and a new orderID is not assigned to this event.		
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.		

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.6. Child Order

The Child Order is used to represent instances when an order is sliced within the desk or department it is being worked, and is assigned a new order identifier. While all CAT reportable activity must be reported to CAT in applicable phases, Child Order events are not required to be utilized for CAT reporting. These event types are for the convenience of Industry Members to help model these types of order handling scenarios.

Child Order events are defined to include only the key data elements that may be changed when the event is created including fields to link to the parent order. The following rules apply with respect to Child Orders:

- Child Order events can only be reported when new order IDs are assigned within the same desk.

 An Order Internal Route Accepted event must be reported when routed to another desk.
- A child order may be generated off of another child order without limitation.
- Child Order events must belong to the same FDID as the parent order. Child Orders must not be
 used to create representative orders. If the FDID changes, a representative New Order event
 must be reported and not a Child Order.
- Child Order events must *not* be used to represent a multi-leg option order being "legged out".
 However, the Child Order event may be used in scenarios where an order is "legged out" and subsequently entered into another OMS/EMS or Algo within the same desk or department where a new *orderID* is assigned to each leg upon entry.

4.6.1. Child Order Event

Table 30: Child Order Event Field Specifications

	Child Order (MECO)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MECO	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R	
7	orderID	Text (64)	The internal order ID assigned to the child order by the Industry Member. Must be unique with the orderKeyDate, CATReporterIMID, and symbol combination.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	parentOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the event from which the Child Order originated.	R	
10	parentOrderID	Text (64)	The <i>orderID</i> of the event from which the Child Order originated. The <i>parentOrderID</i> must not be equal to the <i>orderID</i> within the record.	R	
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
12	eventTimestamp	Timestamp	The date/time at which the child order was originated. Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
13	side	Choice	The side of the order.	R	
14	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С	
15	quantity	Real Quantity	The Child order quantity.	R	
	1				

	Child Order (MECO)				
Seq #	Field Name	Data Type	Description	Include Key	
16	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С	
17	orderType	Choice	The type of order.	R	
18	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
19	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
20	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
21	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A	
22	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	A	
23	displayPrice	Price	The displayed price for this order. When provided, must be greater than or equal to zero.	A	
			If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed.		
			If the atsDisplayInd is 'N', displayPrice must be "0".		
24	workingPrice	Price	The working price of the order at the time it was originated or received. When provided, must be greater than or equal to zero.	A	
			If no current workingPrice, value must be "0".		
25	displayQty	Whole Quantity	The displayed quantity for this order. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the atsDisplayInd is 'N', displayQty must be "0".	А	
26	nbbPrice	Price	The NBBO at the moment the order was originated or	Α	
27	nbbQty	Whole Quantity	received. Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be populated with a	А	
28	nboPrice	Price	value of '0'.	Α	
29	nboQty	Whole Quantity		А	
30	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A	
31	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if <i>nbboSource</i> is 'NA'.	А	
32	multiLegInd	Boolean	Indicates when the Child Order was originated from a multi-leg order event. Refer to Section 5.2 for additional guidance.	R	
33	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the	С	

Child Order (MECO)				
Seq #	Field Name	Data Type	Description	Include Key
			"no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	
34	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С
35	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0
36	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Parent Order Key: parentOrderKeyDate, CATReporterIMID, symbol, parentOrderID

4.6.2. Child Order Modified Event

Industry Members must report a Child Order Modified event to CAT when the Material Terms of the child order have been changed (e.g., price, quantity). All attributes and Material Terms of the modified child order listed on this event must be restated with the modification(s) reflected. A Child Order Modified event may not be used when modifying an Order Internal Route Accepted event.

Industry Members may assign a new Order Key to Child Order Modified events. If a unique *orderID* is assigned, the *priorOrderID* must be populated with the *orderID* of the Child Order event that is being modified, and the *priorOrderKeyDate* must be populated.

Table 31: Child Order Modified Event Field Specifications

	Child Order Modified (MECOM)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	

	Child Order Modified (MECOM)					
Seq #	Field Name	Data Type	Description	Include Key		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MECOM	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the Child Order event which is being modified.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within <i>orderKeyDate, CATReporterIMID</i> , and <i>symbol</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of the Child Order being modified.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being modified.	С		
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	С		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
12	eventTimestamp	Timestamp	The date/time at which the child order was modified (e.g., the time that the child order was confirmed to be cancelled in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	side	Choice	The side of the order.	R		
14	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
15	quantity	Real Quantity	The Child order quantity.	R		
16	minQty	Whole Quantity	The minimum quantity of an order to be executed.	С		
17	leavesQty	Real Quantity	The number of shares of the Child Order left open after	R		

	Child Order Modified (MECOM)					
Seq #	Field Name	Data Type	Description	Include Key		
			the modification has occurred. Must be less than or equal to <i>quantity</i> .			
18	orderType	Choice	The type of order.	R		
19	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
20	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
21	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
22	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
23	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	A		
24	displayPrice	Price	The displayed price of this order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed.	A		
25	workingPrice	Price	If the atsDisplayInd is 'N', displayPrice must be "0". The working price of the order at the time it was originated. When provided, must be greater than or equal to zero.	A		
26	displayQty	Whole Quantity	If no current workingPrice, value must be "0". The displayed quantity of the order. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the	A		
27	nbbPrice	Price	atsDisplayInd is 'N', displayQty must be "0".	Δ.		
27 28	nbbQty	Whole	The NBBO at the moment the order was routed. Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or	A		
		Quantity	quantity, fields must be populated with a value of '0'.			
29	nboPrice	Price		Α		
30	nboQty	Whole Quantity		Α		
31	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A		
32	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if <i>nbboSource</i> is 'NA'.	А		
33	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for	С		

	Child Order Modified (MECOM)				
Seq #	Field Name	Data Type	Description	Include Key	
			additional information.		
34	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be	0	
			expanded in future phases of CAT.		
35	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, symbol, priorOrderID

4.6.3. Child Order Cancelled Event

If a child order is cancelled, a Child Order Cancelled event must be reported. Partial cancellations may be reported using a Child Order Modified event or Child Order Cancelled event with *leavesQty*.

Table 32: Child Order Cancelled Event Field Specifications

	Child Order Cancelled (MECOC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MECOC	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Child Order event which is being cancelled.	R	
7	orderID	Text (64)	The <i>orderID</i> of the Child Order event which is being cancelled.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity	R	

	Child Order Cancelled (MECOC)					
Seq #	Field Name	Data Type	Description	Include Key		
			Securities.			
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
10	eventTimestamp	Timestamp	The date/time at which the child order was cancelled (e.g., the time that the child order was confirmed to be cancelled in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	side	Choice	The side of the order.	R		
12	cancelQty	Real Quantity	The quantity of the Child order being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
13	leavesQty	Real Quantity	The number of shares of the Child Order left open after the cancellation. Full cancellation will result in a zero in this field.	R		
14	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.			
15	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	А		
16	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0		
17	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.7. Order Modified (Cancel/Replace) Event

Industry Members must report an Order Modified event to CAT when the Material Terms of an order have been changed (e.g., price, quantity) or when an order is cancel/replaced. All attributes and Material Terms of the modified order listed on this event must be restated with the modification(s) reflected. If the order is a representative order, the *aggregatedOrders* field must be restated every time the order is modified or cancel/replaced. Changes to the orders being represented in the *aggregatedOrders* field are

considered a modification to the order. The *side* field is required to be reported, but side adjustments are only allowed for same-side changes, including changes between Short Sale and Sell Long.

If a modification results in the generation of new order with a new Order Key which replaces the prior order, the *orderID* field must capture the identifier for the new order, and the prior order fields must reflect the order that is being replaced. If the order has been modified more than once with a new *orderID* assigned with each modification, the *priorOrderID* must refer to *orderID* of the immediately preceding modification which will not be the original Order ID. If the *orderID* remains the same during the modification, the *priorOrderID* must remain blank.

Industry Members are not required to report the modification request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a modification request was received that was too late to modify, and the order was not terminal (e.g., the order was "in-flight" and there was no confirmation time), the request must be reported as an Order Modification Request event.

Table 33: Order Modified (Cancel/Replace) Event Field Specifications

	Order Modified (Cancel/Replace) (MEOM)				
Seq#	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEOM	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the CAT event which is being modified.	R	
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination.	R	
			When a new Order Key is not assigned, the orderID of the Order Modified (Cancel/Replace) event which is being modified.		

	Order Modified (Calice/Replace) (MEOM)					
Seq#	Field Name	Data Type	Description	Include Key		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	priorOrderKeyDate	Timestamp	If a new Order Key has been assigned, this is the orderKeyDate of the event being modified.	С		
10	priorOrderID	Text (64)	If a new Order Key has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	С		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
12	eventTimestamp	Timestamp	The date/time the order was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be	R		
			reported to milliseconds or a finer increment up to nanoseconds.			
13	manualFlag	Boolean	Must be marked as 'true' if the order is modified or replaced manually.	R		
14	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С		
15	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Order Modified and Cancel/Replaced event, this field is to capture the internal order ID of the manual order. Required when electronicDupFlag is 'true'.	С		
16	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
17	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
18	receiverIMID	Industry Member ID	Required when the modification is received from an Industry Member or an exchange. The IMID of the Industry Member receiving the routed order modification.	С		
			When senderType is 'F', this value must equal the destination field on the Order Route event reported by the routing Industry Member.			
			When <i>senderType</i> is 'O', this value must equal the <i>destination</i> on the Order Route event if an Order Route event is reported by the destination.			
			When senderType is 'E', this value must equal the routingParty on the Participant Order Modification			

Order Modified (Cancel/Replace) (MEOM)

Seq#	Field Name	Data Type	Description	Include Key
			event reported by the exchange.	
19	senderIMID	Industry Member ID / Exchange ID	Required when the modification is received from an Industry Member or an exchange. When <code>senderType</code> is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the <code>senderIMID</code> in the Order Route event reported by the routing Industry Member. When <code>senderType</code> is 'O', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the <code>senderIMID</code> in the Order Route event if an Order Route event is reported by the routing Industry Member. When <code>senderType</code> is 'E', this value is the Exchange ID of the sending entity from which the order is routed, and must equal the <code>exchange</code> field in the Participant Order Modification event reported by the exchange.	С
20	senderType	Choice	Required when the modification is received from an Industry Member or an exchange. Indicates the type of origin from which the order is routed.	С
21	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, symbol, senderIMID, and receiverIMID. Required when senderType is 'F', 'E', or 'O', and manualFlag is 'false'.	O
22	requestTimestamp	Timestamp	The date/time the modification was requested. Required if a request was received, and the request is not captured in a separate MEOMR event. Must not be populated if the request is captured in a separate MEOMR event. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be required in future phases of CAT.	C
23	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
24	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
25	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
26	initiator	Choice	Indicates who initiated the order modification.	R
27	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell).	R

Seq#	Field Name	Data Type	Description	Include Key
28	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С
29	quantity	Real Quantity	The order quantity.	R
30	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С
31	leavesQty	Real Quantity	The number of shares of the order left open after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R
32	orderType	Choice	The type of order being submitted (e.g., market, limit).	R
33	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g. DAY, IOC, GTC).	R
34	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
35	isoInd	Choice	Indicates the order was an Intermarket Sweep Order.	R
36	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С
37	custDspIntrFlag	Boolean	Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed.	R
38	infoBarrierID	Text (20)	Specifying the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С
39	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being represented.	С
			Refer to <u>Appendix C</u> for representative order linkage requirements.	
• • •	ated Orders – Start h order being represente	ed <i>n</i> , the following v	alues are required.	
39. <i>n</i> .1	orderID	Text (64)	orderID of the order being represented.	R
39. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being represented.	R
39. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being represented.	С
39. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С
Aggreg	ated Orders – End			

Order Modified (Cancel/Replace) (MEOM)

	1	- Craci Moanica (C		
Seq#	Field Name	Data Type	Description	Include Key
40	representativeInd	Choice	Indicates if the order is a representative order and if linkage is required.	R
41	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A
42	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	A
43	displayPrice	Price	The displayed price of this order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be "0".	A
44	workingPrice	Price	The working price of the order at the time of the modification. When provided, must be greater than or equal to zero. If no current workingPrice, value must be "0".	A
45	displayQty	Whole Quantity	The displayed quantity for this order at the time the order was modified. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the atsDisplayInd is 'N', displayQty must be "0".	A
46	atsOrderType	Array	Shows the ATS-specific order types as selected from a list of order types defined by this ATS.	А
47	nbbPrice	Price	The NBBO at the moment the order was modified.	Α
48	nbbQty	Whole Quantity	Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If	Α
49	nboPrice	Price	no price or quantity, fields must be populated with a value of '0'.	Α
50	nboQty	Whole Quantity	a value of 0.	Α
51	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A
52	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	A
53	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С
54	BFMMFlag	Boolean	Identifies if a Short Sale order event relies on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO. Only applicable to Market Makers on security-by-security basis. When populated with a value of true, the <i>side</i> field	С

Order Modified (Cancel/Replace) (MEOM)					
Seq#	Field Name	Data Type	Description	Inclu Key	ıde
			must be populated with the value of 'SS' or 'SX'.		

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, symbol, aggregatedOrders.orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, symbol, priorOrderID
- Route Linkage Key: Event Date, symbol, receiverIMID, senderIMID, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, symbol, manualOrderID

4.7.1. Order Modified (Cancel/Replace) Supplement Event

The Order Modified Supplement event serves as a supplement to the Order Modified event, just as the New Order Supplement event serves as a supplement to the New Order event.

Table 34: Order Modified (Cancel/Replace) Supplement Event Field Specifications

	Order Modified (Cancel/Replace) Supplement (MEOMS)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEOMS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The orderKeyDate of the related Order Modified (Cancel/Replace) event which this event is supplementing.	R		
7	orderID	Text (64)	The orderID of the related Order Modified (Cancel/Replace) event which this event is supplementing.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary	R		

	Order Modified (Cancel/Replace) Supplement (MEOMS)				
Seq#	Field Name	Data Type	Description	Include Key	
			listing exchange or FINRA for OTC Equity Securities.		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time of the Order Modified this event supplements.	R	
11	aggregatedOrders	Aggregated Orders	The order ID of each customer/client order being represented.	R	
			Refer to <u>Appendix C</u> for representative order linkage requirements.		
• • •	ated Orders – Start h order being represe	ented <i>n</i> , the follo	owing values are required.		
11.n.1	orderID	Text (64)	orderID of the order being represented.	R	
11.n.2	orderKeyDate	Timestamp	orderKeyDate of the order being represented.	R	
11.n.3	quantity	Real Quantity	Required when a partial quantity of the order is being represented.	С	
11.n.4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
Aggrega	ated Orders – End				

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, symbol, aggregatedOrders.orderID

4.7.2. Order Modification Request Event

The Order Modification Request event is required when a request is received to modify the Material Terms of an order if the request is not captured in the *requestTimestamp* field of the Order Modified event. Industry Members are not required to report an Order Modification Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 35: Order Modification Request Event Field Specifications

Order Modification Request (MEOMR) Seq Include Field Name **Data Type Description** Key actionType Choice Indicates whether the event is a new event, a firm R initiated correction or a repair of a CAT error. 2 errorROFID Unsigned Required when actionType is 'RPR'. Must be blank С when actionType is 'NEW'. 3 firmROFID Text (64) An identifier assigned to the record by the reporting R Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. R 4 Message Type MEOMR tvpe 5 0 CATReporterIMID **CAT Reporter** The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must **IMID** equal the CATReporterIMID in the filename. 6 orderKeyDate **Timestamp** The orderKeyDate of the order event for which the R modification was requested. 7 R orderID Text (64) The orderID of the order event for which the modification was requested. The symbol of the stock in the symbology of the R 8 symbol Symbol primary listing exchange or FINRA for OTC Equity Securities. 9 originatingIMID **CAT Reporter** An identifier used in instances of a merger or C acquisition where the originating firm had open limit IMID orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. 10 The date/time of receipt of the modification request. R eventTimestamp **Timestamp** If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Must be marked as 'true' if the modification is R manualFlag Boolean 11 requested manually. С 12 The time at which the event is systematized. electronicTimestamp Timestamp Required when manualFlag is 'true' and the event is systematized. receiverIMID Industry Required when the modification request is received 13 Member ID from an Industry Member or an exchange (senderType is 'F', 'E', or 'O'). The IMID of the Industry Member receiving the modification request. senderIMID Required when the modification request is received 14 Industry C Member ID / from an Industry Member or an exchange. Exchange ID When senderType is 'F' or 'O', this value is the IMID

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of the sending Industry Member from which the

	Order Modification Request (MEOMR)				
Seq #	Field Name	Data Type	Description	Include Key	
			order is routed. When <i>senderType</i> is 'E', this value is the Exchange ID of the sending entity from which the modification was requested.		
15	senderType	Choice	Required when the modification request is received from an Industry Member or an exchange. Indicates the type of origin from which the modification was requested.	С	
			senderType 'O' must only be populated if the symbol is an OTC symbol in a foreign equity security.		
16	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
17	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
18	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell).	R	
19	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С	
20	quantity	Real Quantity	The order quantity.	R	
21	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С	
22	orderType	Choice	The type of order being submitted (e.g., market, limit).	R	
23	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g., DAY, IOC, GTC).	R	
24	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
25	isoInd	Choice	Indicates the order was an Intermarket Sweep Order.	R	
26	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
27	custDspIntrFlag	Boolean	Indicates if a customer/client has instructed that a limit order should not be displayed or that a block size order should be displayed.	R	
28	infoBarrierID	Text (20)	Specifying the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С	
29	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
30	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		

	Order Modification Request (MEOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
31	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
32	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	A		
33	displayPrice	Price	The displayed price of this order. When provided, must be greater than or equal to zero. If atsDisplayInd is 'Y', 'S', or 'A', displayPrice must be the price at which the order was displayed. If atsDisplayInd is 'N', displayPrice must be "0".	A		
34	workingPrice	Price	The working price of the order at the time of the modification request. When provided, must be greater than or equal to zero. If no current workingPrice, value must be "0".	A		
35	displayQty	Whole Quantity	The displayed quantity for this order at the time of the modification request. If the atsDisplayInd is populated as 'Y', 'S', or 'A', displayQty must be the quantity at which the order was displayed. If the atsDisplayInd is 'N', displayQty must be "0".	Α		
36	atsOrderType	Array	Shows the ATS-specific order types as selected from a list of order types defined by this ATS.	А		
37	nbbPrice	Price	The NBBO at the time of the modification request.	Α		
38	nbbQty	Whole Quantity	Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If	Α		
39	nboPrice	Price	no price or quantity, fields must be populated with a	Α		
40	nboQty	Whole Quantity	value of '0'.	Α		
41	nbboSource	Choice	Source of the NBBO data used. If nbboSource is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the nbboTimestamp must be blank.	Α		
42	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	А		
43	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.8. Order Adjusted Event

An Order Adjusted event must be used when the display price or quantity changes as the result of a Display ATS matching engine action and not from a customer/client instruction. The Order Adjusted event may be used by non-ATS firms instead of an Order Modified event to report changes to the price or quantity of an order.

The following rules apply:

- If any of the price fields change, then all price fields (i.e., *price, displayPrice*, and *workingPrice*) must be reported to represent current state of the order relative to price. The quantity fields are not required.
- If any of the quantity fields change, then all quantity fields (i.e., quantity, minQty, leavesQty, displayQty) must be reported to represent the current state of the order relative to quantity. The price fields are not required.

Any modification that cannot be fully represented in this Reportable Event must be reported via the Order Modified event. This includes modifications received from another Industry Member where a *routedOrderID* is required, and modifications to the *orderType*.

Industry Members may assign a new Order Key to Order Adjusted events. If a unique *orderID* is assigned, the *priorOrderID* must be populated with the *orderID* of the order that is being adjusted, and the *priorOrderKeyDate* must be populated. If the order has been adjusted more than once, the *priorOrderID* must refer to *orderID* of the immediately preceding adjustment which will not be the original Order ID.

Table 36: Order Adjusted Event Field Specifications

Order Adjusted (MEOJ)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEOJ	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the	0

	Order Adjusted (MEOJ)					
Seq #	Field Name	Data Type	Description	Include Key		
			CATReporterIMID in the filename.			
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of order event which is being modified.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within <i>orderKeyDate, CATReporterIMID</i> , and <i>symbol</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of	R		
			order event which is being modified.			
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being adjusted.	С		
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the event being adjusted. When populated, the <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record.	С		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
12	eventTimestamp	Timestamp	The date/time at which the order was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	manualFlag	Boolean	Must be marked as 'true' if the order is adjusted manually.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	initiator	Choice	Indicates who initiated the order adjustment.	R		
16	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>price</i> , <i>displayPrice</i> , or <i>workingPrice</i> changed.	С		
17	quantity	Real Quantity	The order quantity. Required when <i>quantity</i> , <i>minQty</i> , <i>leavesQty</i> , or <i>displayQty</i> changed.	С		
18	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable and when <i>quantity</i> , <i>minQty</i> , <i>leavesQty</i> , or <i>displayQty</i> changed.	С		

	Order Adjusted (MEOJ)					
Seq #	Field Name	Data Type	Description	Include Key		
19	leavesQty	Real Quantity	The number of shares of the order left open after the adjustment/modification has occurred. Required when quantity, minQty, leavesQty, or displayQty changed. Must be less than or equal to quantity.	С		
20	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
21	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	Α		
22	displayPrice	Price	The displayed price of the order. When provided, must be greater than or equal to zero. Required when applicable and when price, workingPrice, or displayPrice changed.	O		
23	workingPrice	Price	The working price of the order. When provided, must be greater than or equal to zero. Required when applicable and when <i>price</i> , workingPrice, or displayPrice changed.	С		
24	displayQty	Whole Quantity	The displayed quantity for this order. Required when applicable and when <i>quantity</i> , <i>minQty</i> , <i>leavesQty</i> , or <i>displayQty</i> changed.	С		
25	nbbPrice	Price	The NBBO at the moment the order was modified.	Α		
26	nbbQty	Whole Quantity	Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be populated with a value	А		
27	nboPrice	Price	of '0'.	Α		
28	nboQty	Whole Quantity		А		
29	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A		
30	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if <i>nbboSource</i> is 'NA'.	A		
31	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
32	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information. Required if changed.	С		

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, symbol, priorOrderID

4.9. Order Cancelled Event

The Order Cancelled event is reported when an order is fully or partially cancelled. Partial cancellations of an order may be reported to CAT using an Order Cancelled event or an Order Modified event. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

Implicit order cancellations, such as cancellations due to expiration of Time in Force, are not required to be reported to CAT.

Order Cancelled events are required to be reported by the entity that initiated the cancellation. When an Order is routed from Firm A to Firm B, the following rules apply:

- If Firm A or its customer/client initiates the cancel, Firm A and Firm B must report the Order Cancelled event.
- If Firm B initiates the cancel, Firm B must report the Order Cancelled event.

Industry Members are not required to report the cancel request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a cancellation request was received that was too late to cancel, and the order was not terminal (e.g., the order was "in-flight" and there was no confirmation time), the request must be reported as an Order Cancel Request event.

Table 37: Order Cancelled Event Field Specifications

Order Cancelled (MEOC)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEOC	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the	0

	Order Cancelled (MEOC)					
Seq #	Field Name	Data Type	Description	Include Key		
			CATReporterIMID in the filename.			
6	orderKeyDate	Timestamp	The orderKeyDate of the order event which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the order event which is being cancelled.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	0		
10	eventTimestamp	Timestamp	The date/time the order was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds.	R		
			If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
11	manualFlag	Boolean	Must be marked as 'true' if the order is cancelled manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	leavesQty	Real Quantity	The number of shares of the order left open after the cancel event. The full cancel will result in zero in this field.	R		
15	initiator	Choice	Indicates who initiated the order cancellation.	R		
16	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
17	requestTimestamp	Timestamp	The date/time the cancellation was requested. Required if a request was received, and the request is not captured in a separate MEOCR event. Must not be populated if the request is captured in a separate MEOCR event.	С		
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be			
			required in future phases of CAT.			

Order Cancelled (MEOC)				
Seq #	Field Name	Data Type	Description	Include Key
18	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С

• Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.9.1. Order Cancel Request Event

The Order Cancel Request event is required when a request is received to cancel an order if the request is not captured in the *requestTimestamp* field of the Order Cancelled event. Industry Members are not required to report an Order Cancel Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 38: Order Cancel Request Event Field Specifications

	Order Cancel Request (MEOCR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEOCR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The orderKeyDate of the order event for which the cancellation was requested.	R		
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the cancellation was requested.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit	С		

	Order Cancel Request (MEOCR)					
Seq #	Field Name	Data Type	Description	Include Key		
			orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.			
10	eventTimestamp	Timestamp	The date/time of receipt of the cancel request.	R		
			If <i>manualFlag</i> is 'true', timestamp must be reported to seconds.			
			If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
11	manualFlag	Boolean	Must be marked as 'true' if the cancellation is requested manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A		
15	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		

Order Key: orderKeyDate, CATReporterIMID, symbol, orderID

4.10. Quotes

Quote events are used to report electronic quotes and electronic RFQ responses communicated in standard electronic format (e.g., FIX) that are not immediately actionable that need to be reported to CAT, under the definition of an "order" under Rule 613(j)(8), provided by or received in a CAT Reporter's order/quote handling system, execution systems, or RFQ platform in CAT reportable securities and are provided by an Industry Member to other market participants off a national securities exchanges, as described in CAT FAQ B45. The following guidance applies to quotes in OTC Equity Securities and NMS Securities sent to an inter-dealer quotation system or electronic RFQ responses sent to an RFQ platform in standard electronic format that are not immediately actionable that need to be reported to CAT:

- Quotes in OTC Equity Securities sent to an inter-dealer quotation system operated by an Industry Member must be reported using the New Quote event.
- Quotes in OTC Equity Securities received by an Industry Member CAT Reporter operating an inter-dealer quotation system using the Quote Received event.

- Quotes in OTC Equity Securities that meet the definition of bid or offer under the CAT NMS Plan sent by a broker-dealer to a quotation venue not operated by a CAT Reporter must be reported using the New Quote event.
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, sent to an RFQ platform operated by an Industry Member must be reported using the New Quote event.
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, received by an Industry Member CAT Reporter operating an RFQ platform using the Quote Received event.

Quotes in NMS Securities sent to an exchange or a Display-Only Facility must also be reported using the New Order and Order Route events.

On May 20, 2024, the SEC announced an order Granting a Temporary Conditional Exemption Pursuant to Section 36(a)(1) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 608(e) of Regulation NMS Under the Exchange Act, Relating to the Reporting of Responses to Requests for Quotes and Other Solicitation Responses Provided in a Standard Electronic Format that is not "immediately actionable" (i.e., further action is required by the responder providing the quote in order to execute or cause a trade to be executed) ("NIA Electronic RFQ Responses"), as Required by Section 6.4(d) of the National Market System Plan Governing the Consolidated Audit Trail, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8), from August 1, 2024 to August 1, 2026.

4.10.1. New Quote Event

The New Quote Event is used to report the following:

- Quotes originated in OTC equity securities ultimately sent to an inter-dealer quotation system operated by an Industry Member
- Quotes originated in OTC Equity securities ultimately sent to a quotation venue not operated by a CAT Reporter.
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, ultimately sent to an RFQ system operated by an Industry Member.
- Electronic RFQ responses that are not immediately actionable, that need to be reported to CAT,
 ultimately sent to a Third Party RFQ Platform not operated by a CAT Reporter.
- Any other electronic quotes which are provided by or received in a CAT Reporter's order/quote handling or execution systems in CAT reportable securities and are provided by an Industry

Member to other market participants off a national securities exchange, as described in <u>CAT</u> FAQ B45.

Quotes originated in NMS equity Securities for displaying on a Display-Only Facility.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. For quotes representing a name only quote in an OTC Equity security for which a price and quantity is not applicable, the price and quantity of the applicable side must be blank or must be populated with zero, and the *unpricedInd* field must be populated as 'true'. An unpriced quote generated to cancel and clear an existing two-sided quotation in NMS Security on a Display-Only Facility must include the *unpricedInd* field populated with 'true', and the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields all populated with a value of zero. For quote events reported to CAT reflecting a response to an electronic RFQ, if the *bidRelativePrice*/askRelativePrice field is populated, the *bidPrice* and *askPrice* fields are not required to be populated.

If the field *onlyOneQuoteFlag* is populated as 'true', any New Quote event offered by the same CATReporterIMID to the same destination in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the *onlyOneQuoteFlag* method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the New Quote Event must not maintain the same quote ID as the quote that was cancelled. Modifications to a quote when the *onlyOneQuoteFlag* is populated as 'true' may alternatively be captured using the Quote Modified event.

Quotes entered directly into an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be originated manually, and the *manualFlag* must be populated as 'true'.

Table 39: New Quote Event Field Specifications

	New Quote (MENQ)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MENQ	R	

	New Quote (MENQ)				
Seq #	Field Name	Data Type	Description	Include Key	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and symbol combination.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	retiredFieldPosition		Field position is retired and must remain blank.		
10	retiredFieldPosition		Field position is retired and must remain blank.		
11	eventTimestamp	Timestamp	The date/time the quote was originated by the Industry Member.	R	
			If manualFlag is 'true', must be reported to seconds or a finer increment up to nanoseconds. If manualFlag is 'false', must be reported to		
			milliseconds or a finer increment up to nanoseconds.		
12	seqNum	Alphanumeric (40)	IDQS only field. The sequence number assigned to the quote by the reporter. Any alphanumeric not containing a delimiter.	С	
			Required if two MENQs are submitted by an Industry Member using the <i>onlyOneQuoteFlag</i> method to modify a quote, and both MENQ events have the same timestamp.		
13	retiredFieldPosition		Field position is retired and must remain blank.		
14	retiredFieldPosition		Field position is retired and must remain blank.		
15	retiredFieldPosition		Field position is retired and must remain blank.		
16	onlyOneQuoteFlag	Boolean	Value is 'true' if the recipient only allows one quote to be active per <i>symbol</i> at a time for this Industry Member. Otherwise, false.	R	
17	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero.	С	
			When <i>unpricedInd</i> is 'true', must be blank, or populated with a value of '0'.		
			When <i>unpricedInd</i> is 'false', must be populated with a value greater than 0 if the <i>askPrice</i> field is blank.		
			When bidRelativePrice is populated, the field is not required to be populated.		
18	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С	
19	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero.	С	

		ı	New Quote (MENQ)	
Seq #	Field Name	Data Type	Description	Include Key
			When unpricedInd is 'true', must be blank, or populated with a value of '0'. When unpricedInd is 'false', must be populated with a value greater than 0 if the bidPrice field is blank. When askRelativePrice is populated, the field is not required to be populated.	
20	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С
21	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field. Required when representativeQuoteInd is null. Must be blank for an Industry Member generating quotes and displaying them on a Display-only Facility. (i.e., Not required when representativeQuoteInd is present.) Must be populated when the RFQFlag field is 'true'.	С
22	accountHolderType	Choice	Represents the type of account that originated this quote. Must be provided when firmDesignatedID is present. Must be blank for an Industry Member generating quotes and displaying them on a Display-only Facility. (i.e., Must be blank when representativeQuoteInd is present.)	С
23	unsolicitedInd	Choice	Indicates whether this is an unsolicited quote. Must be blank when the representativeQuoteInd field is populated.	С
24	retiredFieldPosition		Field position is retired and must remain blank.	
25	retiredFieldPosition		Field position is retired and must remain blank.	
26	unpricedInd	Boolean	unpricedInd indicates when the quote is unpriced. Must be 'false' when RFQFlag is 'true' Must be populated as 'true' if the quote represents a name only quote in OTC Equity security for which a price and quantity is not applicable. When unpricedInd is 'true', bid and ask fields are not required or applicable side may be populated with zero. An unpriced quote generated to cancel and clear an existing two-sided quotation in NMS Security on a Display-Only Facility must be populated with 'true', with the bidPrice, bidQty, askPrice and askQty fields all populated with a value of zero.	R
27	manualFlag	Boolean	Must be marked as 'true' if the quote is received or captured manually.	R
28	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С

	New Quote (MENQ)				
Seq #	Field Name	Data Type	Description	Include Key	
29	representativeQuoteInd	Choice	ADF only field. Indicates if the quote represents Customer/Client orders. Required only when an Industry Member is generating quotes and displaying them on a Display-only Facility.	С	
30	askAggregatedOrders	Aggregated Orders	ADF only field. The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the ask side. See <u>Table 40</u> : Aggregated <u>Orders</u> below.	О	
			Required only when an Industry Member is generating quotes and displaying them on a Displayonly Facility.		
			Required when <i>representativeQuoteInd</i> is 'A' or 'C'. Must be blank when <i>representativeQuoteInd</i> is 'N' or 'S'.		
31	bidAggregatedOrders	Aggregated Orders	ADF only field. The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the bid side. See <u>Table 40</u> : Aggregated Orders below.	С	
			Required only when an Industry Member is generating quotes and displaying them on a Displayonly Facility.		
			Required when representativeQuoteInd is 'B' or 'C'. Must be blank when representativeQuoteInd is 'N' or 'S'.		
32	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	С	
			Not required for quotes routed to/accepted by OTC Link ATS or the ADF.		
			Must be populated when <i>RFQFlag</i> is 'true'. This field is exclusively associated with RFQ		
			responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is		
			required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and		
33	RFQFlag	Boolean	Solicitation for more information. RFQ only field. Indicates if the CAT quote event	С	
	_		reflects a response to an RFQ.		
			Must be 'true' when <i>RFQID</i> field is populated. This field may be required in future phases of CAT.		
			This field is exclusively associated with RFQ		
			responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is		
			required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are		

	New Quote (MENQ)				
Seq #	Field Name	Data Type	Description	Include Key	
			considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.		
34	bidRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С	
35	askRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С	
36	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	O	

Table 40: Aggregated Orders

The reporting of Aggregated Order Details indicated below is applicable only for an Industry Member generating quotes and displaying them on a Display-only Facility.

The Aggrega	The Aggregated Order Details associated with fields: askAggregatedOrders and bidAggregatedOrders:					
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.1</seq>	orderID	Text (64)	orderID of the order being represented.	R		
<seq>.1.2</seq>	orderKeyDate	Timestamp	orderKeyDate of the order being represented.	R		
<seq>.1.3</seq>	quantity	Real Quantity	Required when a partial quantity of the order is being represented.	С		
<seq>.1.4</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		

Linkage Keys for this Reportable Event:

Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID, RFQID

4.10.2. New Quote Supplement Event

The New Quote Supplement event is a supplement to the New Quote event. One New Quote event can have multiple New Quote Supplement events. Multiple New Quote Supplement events are considered as additions, not replacements or modifications.

This event accommodates reporting in scenarios when the number of Aggregated Orders included in the <code>askAggregatedOrders</code> or <code>bidAggregatedOrders</code> fields cause the New Quote event to exceed the maximum allowed message length, or when the orders being represented are not captured in the New Quote event. The <code>askAggregatedOrders</code> and <code>bidAggregatedOrders</code> fields in the New Quote Supplement event must contain the additional Aggregated Orders that were not captured in the original New Quote event, or another Supplement event for the same quote.

This event is required only when an Industry Member is generating quotes and displaying them on a Display-only Facility.

Table 41: New Quote Supplement Event Field Specifications

	New Quote Supplement (MENQS)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	O	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MENQS	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and symbol combination.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	eventTimestamp	Timestamp	The date/time the quote was originated by the Industry Member.	R	
10	representativeQuoteInd	Choice	Indicates if the quote represents Customer/Client orders. Applicable for an Industry Member generating quotes and displaying them on a Display-only Facility. 'S' or 'N' are not valid values for this event.	R	
11	askAggregatedOrders	Aggregated Orders	The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the ask side. See <u>Table 40</u> : Aggregated Orders. Required when <i>representativeQuoteInd</i> is 'A' or 'C'.	С	
12	bidAggregatedOrders	Aggregated Orders	The orderID of each Customer/Client order being aggregated into a quote on the bid side. See <u>Table 40</u> : Aggregated Orders. Required when representativeQuoteInd is 'B' or 'C'.	С	
			Nequired when representative Quoternus b of C.		

• Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID

4.10.3. Routed Quote Event

The Routed Quote Event is used to report the following:

- Quotes in OTC equity securities sent to an inter-dealer quotation system or operated by an Industry Member
- Quotes in OTC Equity securities sent to a quotation venue not operated by a CAT Reporter.
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT,
 sent to an RFQ platform operated by an Industry Member
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, sent to an RFQ platform not operated by a CAT Reporter.
- Any other route of electronic quotes which are provided by or received in a CAT Reporter's order/quote handling or execution systems in CAT reportable securities and are provided by an Industry Member to other market participants off a national securities exchanges, as described in CAT FAQ B45.
- Quotes originated in NMS equity Securities for displaying on a Display-Only Facility.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. For quotes representing a name only quote in an OTC Equity security for which a price and quantity is not applicable, the price and quantity of the applicable side must be blank or must be populated with zero, and the *unpricedInd* field must be populated as 'true'. An unpriced quote generated to cancel and clear an existing two-sided quotation in NMS Security on a Display-Only Facility must include the *unpricedInd* field populated with 'true', and the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields all populated with a value of zero. For quote events reported to CAT reflecting a response to an electronic RFQ, if the *bidRelativePrice l askRelativePrice* field is populated, the *bidPrice* and *askPrice* fields are not required to be populated.

Quotes entered directly into an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be routed manually, and the *manualFlag* must be populated as 'true'. The *routedQuoteID* field is not required for manual routes.

Table 42: Routed Quote Event Field Specifications

Routed Quote (MERQ)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С

Routed Quote (MERQ)				
Seq #	Field Name	Data Type	Description	Include Key
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter</firm></event>	R
4	type	Message Type	IMID. MERQ	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and symbol combination.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	eventTimestamp	Timestamp	The date/time the quote was sent by the Industry Member. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
10	seqNum	Alphanumeric (40)	IDQS only field. The sequence number assigned to the quote by the reporter. Any alphanumeric not containing a delimiter. Required if two MERQs are submitted by an Industry Member using the onlyOneQuoteFlag method to route a modified quote, and both MERQ events have the same timestamp.	С
11	senderIMID	Industry Member ID	The IMID of the Industry Member that is sending the quote, as known by the destination. This value must match the <i>senderIMID</i> on the Quote Received event reported by the destination.	R
12	destination	Industry Member ID	When <i>destinationType</i> is 'F', this field contains the SRO-assigned identifier of the destination Industry Member. This value must match the <i>receiverIMID</i> field on the Quote Received event reported by the destination. When <i>destinationType</i> is 'D', this field contains the identifier of the Display-only Facility.	С
13	routedQuoteID	Text (64)	Not required when <i>destinationType</i> is 'S' or 'N'. The quote ID sent to the recipient of the quote. Required when <i>manualFlag</i> is 'false'. Not required when <i>manualFlag</i> is 'true'.	С
			When dupROIDCond is 'false', must be unique per combination of Event Date, symbol, destination, and senderIMID.	
			Must be populated for RFQ flow.	

	Routed Quote (MERQ)				
Seq #	Field Name	Data Type	Description	Include Key	
14	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero. When unpricedInd is 'true', must be blank, or populated with a value of '0'. When unpricedInd is 'false', must be populated with a value greater than 0 if the askPrice field is blank. When bidRelativePrice is populated, the field is not required to be populated.	0	
15	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С	
16	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When unpricedInd is 'true', must be blank, or populated with a value of '0'. When unpricedInd is 'false', must be populated with a value greater than 0 if the bidPrice field is blank. When askRelativePrice is populated, the field is not required to be populated.	С	
17	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С	
18	quoteRejectedFlag	Boolean	If the result of the quote is rejected or no response was received, value should be 'true'.	R	
19	unpricedInd	Boolean	unpricedInd indicates when the quote is unpriced. Must be populated as 'true' if the quote represents a name only quote in OTC Equity security for which a price and quantity is not applicable. When unpricedInd is 'true', bid and ask fields are not required or applicable side may be populated with zero. An unpriced quote generated to cancel and clear an existing two-sided quotation in an NMS security on a Display-Only Facility must be populated with 'true', with the bidPrice, bidQty, askPrice and askQty fields all populated with a value of zero.	R	
20	dupROIDCond	Boolean	Indicates when a Routed Quote event maintains the original routedQuoteID.	R	
21	manualFlag	Boolean	Must be marked as 'true' if the quote is sent manually.	R	
22	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
23	destinationType	Choice	Indicates whether the <i>destination</i> of the route is an Industry Member or a Display-only Facility or a non-broker dealer. Only applicable when an Industry Member is generating quotes and (1) displaying them on a Display-only Facility or (2) sending quotes to an non-CAT reporting	С	

	Routed Quote (MERQ)				
Seq #	Field Name	Data Type	Description	Include Key	
			entity in response to an RFQ or other similar form of solicitation.		
24	session	Text (40)	IDQS and ADF only field. The session ID used when routing the quote. Must equal the session in the quote received event reported by the Display-only Facility.	С	
			Required only when an Industry Member is generating quotes and displaying them on a Display-only Facility. Required when destinationType is 'D'.		
25	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	С	
			Not required for quotes routed to/accepted by OTC Link ATS or the ADF.		
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.		
26	bidRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific bidPrice may not be available.	С	
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.		
27	askRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available.	С	
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.		

	Routed Quote (MERQ)					
Seq #	Field Name	Data Type	Description	Include Key		
28	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0		
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.			

- Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID, RFQID
- Quote Route Key: Event Date, senderIMID, destination, symbol, routedQuoteID, session

4.10.4. Routed Quote Supplement Event

The Routed Quote Supplement Event is a supplement to the Routed Quote event. Routed Quote Supplement events are considered as additions to a Routed Quote event, not replacements or modifications. This event accommodates reporting in scenarios where a quote route is rejected by the venue to which it was routed, and the Industry Member chooses to report the *quoteRejectedFlag* in this separate Routed Quote Supplement event.

This event is required only when an Industry Member is generating quotes and displaying them on a Display-only Facility.

Table 43: Routed Quote Supplement Event Field Specifications

Routed Quote Supplement (MERQS)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R

Routed Quote Supplement (MERQS)					
Seq #	Field Name	Data Type	Description	Include Key	
4	type	Message Type	MERQS	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The <i>quoteKeyDate</i> of the related Routed Quote event this event is supplementing.	R	
7	quoteID	Text (64)	The <i>quoteID</i> of the related Routed Quote event which this event is supplementing.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	eventTimestamp	Timestamp	The date/time of the related Route Quote event this event supplements (including scenarios in which the supplement is created at a later time).	R	
10	senderIMID	Industry Member ID	The IMID of the Industry Member that is sending the quote, as known by the destination. This value must match the <i>senderIMID</i> on the Quote Received event reported by the destination.	R	
11	destination	Industry Member ID	When destinationType is 'F', this field contains the SRO-assigned identifier of the destination Industry Member. This value must be a valid IMID and must match the receiverIMID field on the Quote Received event reported by the destination.	R	
			When destinationType is 'D', this field contains the identifier of the Display-only Facility. This value must be a valid Display-only Facility value and must equal the receiverIMID field on the quote received event reported by the Display-only Facility.		
12	routedQuoteID	Text (64)	The quote ID sent to the recipient of the quote. Must match the <i>routedQuoteID</i> of the Routed Quote event that this event supplements.	R	
13	quoteRejectedFlag	Boolean	If the result of the quote is rejected or no response was received, value should be 'true'.	R	
14	destinationType	Choice	Indicates whether the <i>destination</i> of the route is an Industry Member or a Display-only Facility.	R	
15	session	Text (40)	The session ID used when routing the quote. Must equal the <i>session</i> in the quote received event reported by the Display-only Facility. Required when <i>destinationType</i> is 'D'.	С	

• Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID

4.10.5. Quote Received/Replace Event

The Quote Received event is used to report New Quotes in OTC Equity and NMS Securities received by an Industry Member inter-dealer quotation system, and to update and replace an existing RFQ response.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. For quotes representing a name only quote for which a price and quantity is not applicable, the price and quantity of the applicable side must be blank or must be populated with zero, and the *unpricedInd* must be populated as 'true'. For quote events reported to CAT reflecting a response to an electronic RFQ, if the *bidRelativePrice* / *askRelativePrice* field is populated, the *bidPrice* and *askPrice* fields are not required to be populated.

If the field *onlyOneQuoteFlag* is populated as 'true', any Quote Received event offered by the same CATReporterIMID from the same *senderIMID* in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the *onlyOneQuoteFlag* method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the Quote Received Event must not maintain the same quote ID as the quote that was cancelled. Modifications to a quote when the *onlyOneQuoteFlag* is populated as 'true' may alternatively be captured using the Quote Modified event.

Quotes entered directly into an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be received manually, and the *manualFlag* must be populated as 'true'. The *routedQuoteID* field is not required for manual routes.

Table 44: Quote Received Event Field Specifications

	Quote Received (MEQR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	O	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MEQR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	

	Quote Received (MEQR)					
Seq #	Field Name	Data Type	Description	Include Key		
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R		
7	quoteID	Text (64)	The internal quote ID assigned to the quote by Industry Member. Must be unique within <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	receivedQuoteID	Text (64)	The quote ID as received by the Industry Member inter- dealer quotation system or RFQ platform, must match the <i>routedQuoteID</i> in the Routed Quote event created by the issuer of the quote.	O		
			Required when <i>manualFlag</i> is 'false'. Not required when <i>manualFlag</i> is 'true'.			
			When dupROIDCond is 'false', must be unique per combination of Event Date, symbol, destination, and senderIMID.			
			Must be populated for RFQ flow.			
10	eventTimestamp	Timestamp	The date/time the quote was received by the Industry Member inter-dealer quotation system or RFQ platform. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	seqNum	Alphanumeric (40)	IDQS only field. The sequence number assigned to the quote received message by the reporter. Any alphanumeric not containing a delimiter.	R		
12	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the quote (the Industry Member reporting this Reportable Event). It must match the <i>destination</i> field on the Routed Quote event reported by the routing entity.	R		
13	senderIMID	Industry Member ID	The IMID of the Industry Member providing the quote. This value must match the <i>senderIMID</i> in the New Quote event reported by the routing Industry Member. Not required when <i>senderType</i> is 'N or 'S'.	С		
14	onlyOneQuoteFlag	Boolean	'true' if the Industry Member only allows one quote active per <i>symbol</i> at a time for the issue of the quote; false otherwise.	R		
15	retiredFieldPosition		Field position is retired and must remain blank.			
16	retiredFieldPosition		Field position is retired and must remain blank.			
17	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero.	С		
			When <i>unpricedInd</i> is 'true', must be blank, or populated with a value of '0'.			
			When <i>unpricedInd</i> is 'false', must be populated with a value greater than 0 if the <i>askPrice</i> field is blank.			
			When <i>bidRelativePrice</i> is populated, the field is not required to be populated.			

	Quote Received (MEQR)					
Seq #	Field Name	Data Type	Description	Include Key		
18	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С		
19	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When unpricedInd is 'true', must be blank, or populated with a value of '0'. When unpricedInd is 'false', must be populated with a value greater than 0 if the bidPrice field is blank. When askRelativePrice is populated, the field is not required to be populated.	С		
20	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С		
21	retiredFieldPosition		Field position is retired and must remain blank.			
22	unsolicitedInd	Choice	Indicates whether this is an unsolicited quote.	R		
23	quoteWantedInd	Choice	IDQS only field. Indicates if the quote message received by an IDQS is a request for a bid or an ask. This field is only applicable to IDQSs. When quoteWantedInd is populated, bid and ask fields are not required.	С		
24	unpricedInd	Boolean	If this is an unpriced quote, must be populated as 'true'. When <i>unpricedInd</i> is 'true', bid and ask fields are not required. Must be 'false' when <i>RFQFlag</i> is 'true'	R		
25	dupROIDCond	Boolean	Indicates when a Quote Received event maintains the original routedQuoteID.	R		
26	manualFlag	Boolean	Must be marked as 'true' if the quote is received or captured manually.	R		
27	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
28	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	С		
			Not required for quotes routed to/accepted by OTC Link ATS or the ADF.			
			Must be populated when RFQFlag is 'true'.			
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs			

	Quote Received (MEQR)					
Seq #	Field Name	Data Type	Description and Solicitation for more information.	Include Key		
29	RFQFlag	Boolean	RFQ only field. Indicates if the CAT quote event reflects a response to an RFQ. Must be 'true' when <i>RFQID</i> field is populated. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С		
30	bidRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific bidPrice may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С		
31	askRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С		
32	senderType	Choice	RFQ only field. Indicates the type of origin from which the quote is routed. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs	С		

	Quote Received (MEQR)				
Seq #	Field Name	Data Type	Description	Include Key	
			and Solicitation for more information.		
33	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0	
			This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.		

- Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID, RFQID
- Quote Route Key: Event Date, senderIMID, receiverIMID, symbol, receivedQuoteID
- IDQS Linkage Key: quoteKeyDate, senderIMID, CATReporterIMID, symbol, quoteID

4.10.6. Quote Cancelled Event

If a quote is cancelled that was sent to by an Industry Member to an Industry Member inter-dealer quotation system, then both the sender of the quote and the inter-dealer quotation system that accepted the quote must report Quote Cancelled events. If an RFQ Response (not immediately actionable) is cancelled that was sent to by an Industry Member to an Industry Member operating an RFQ platform or a quotation venue not operated by a CAT Reporter, then the sender of the RFQ Response must report Quote Cancelled events.

Orders cancelled directly in an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be cancelled manually, and the *manualFlag* must be populated as 'true'.

Table 45: Quote Cancelled Event Field Specifications

	Quote Cancelled (MEQC)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		

	Quote Cancelled (MEQC)				
Seq #	Field Name	Data Type	Description	Include Key	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEQC	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The <i>quoteKeyDate</i> of the Quote event which is being cancelled.	R	
7	quoteID	Text (64)	The <i>quoteID</i> of the Quote event which is being cancelled.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time the quote was cancelled. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
11	seqNum	Alphanumeric (40)	IDQS only field. The sequence number of the quote cancel message. Any alphanumeric not containing a delimiter. Required for inter-dealer quotation systems only.	С	
12	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
13	initiator	Choice	Indicates who initiated the order cancellation.	R	
14	retiredFieldPosition		Field position is retired and must remain blank.		
15	manualFlag	Boolean	Must be marked as 'true' if the quote is cancelled manually.	R	
16	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
17	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. Not required for quotes routed to/accepted by OTC Link ATS or the ADF. This field is exclusively associated with RFQ	С	

Quote Cancelled (MEQC)				
Seq #	Field Name	Data Type	Description	Include Key
			responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	

• Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID, RFQID

4.10.7. Quote Modified Event

Reported when a quote is modified, and the venue supports more than one quote per *symbol* for an Industry Member at one time. If the field *onlyOneQuoteFlag* field on the related New Quote or Quote Received event is populated as 'true', the Quote Modified event must not be used.

If a modification to a quote results in the generation of a new *quoteID* with a new Quote Key which replaces the prior *quoteID*, the *quoteID* field must capture the newly assigned *quoteID*, and the prior quote fields must reflect the quote that is being modified. If the quote has been modified more than once with a new *quoteID* assigned with each modification, the *priorQuoteID* must refer to quote*ID* of the immediately preceding modification which will not be the original Quote ID. If the *quoteID* remains the same during the modification, the *priorQuoteID* must remain blank.

Orders modified directly in an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be modified manually, and the *manualFlag* must be populated as 'true'.

Table 46: Quote Modified Event Field Specifications

	Quote Modified (MEQM)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	

	Quote Modified (MEQM)				
Seq #	Field Name	Data Type	Description	Include Key	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MEQM	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and symbol combination.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	priorQuoteKeyDate	Timestamp	If a new Quote ID has been assigned, this is the quoteKeyDate of the event being modified.	С	
10	priorQuoteID	Text (64)	If a new Quote Key has been assigned, this is the quoteID of the event being modified. When populated, the priorQuoteID must not be equal to the quoteID within the record.	С	
11	eventTimestamp	Timestamp	The date/time the quote was modified. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
12	seqNum	Alphanumeric (40)	IDQS only field. The sequence number assigned to the quote by the reporter. Any alphanumeric not containing a delimiter. Required for inter-dealer quotation systems only.	С	
13	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero.	С	
			When <i>unpricedInd</i> is 'true', must be blank, or populated with a value of '0'.		
			When <i>unpricedInd</i> is 'false', must be populated with a value greater than 0 if the <i>askPrice</i> field is blank.		
			When bidRelativePrice is populated, the field is not required to be populated.		
14	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С	
15	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero.	С	
			When <i>unpricedInd</i> is 'true', must be blank, or populated with a value of '0'.		
			When <i>unpricedInd</i> is 'false', must be populated with a		

	Quote Modified (MEQM)				
Seq #	Field Name	Data Type	Description	Include Key	
			value greater than 0 if the bidPrice field is blank.		
			When askRelativePrice is populated, the field is not required to be populated.		
16	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С	
17	unsolicitedInd	Choice	Indicates whether this is an unsolicited quote.	R	
18	unpricedInd	Boolean	If this is an unpriced quote, must be populated as 'true'. When <i>unpricedInd</i> is 'true', bid and ask fields are not required.	R	
19	manualFlag	Boolean	Must be marked as 'true' if the quote is modified manually.	R	
20	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
21	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. Not required for quotes routed to/accepted by OTC Link ATS or the ADF. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С	
22	bidRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific bidPrice may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	С	
23	askRelativePrice	Name/Value Pairs	RFQ only field. Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available. This field is exclusively associated with RFQ responses	С	

		Q	uote Modified (MEQM)	
Seq #	Field Name	Data Type	Description	Include Key
			that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	
24	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	0

- Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID, RFQID
- Prior Quote Key: priorQuoteKeyDate, CATReporterIMID, symbol, priorQuoteID

4.10.8. Quote Status Event

Reported when the status of a quote is changed to be opened or closed. If a quote that was sent by an Industry Member to an Industry Member inter-dealer quotation system is opened or closed by the Industry Member that sent the quote, then both the sender of the quote and the inter-dealer quotation system that accepted the quote must report Quote Status events.

If the status of a quote that was sent by an Industry Member to an Industry Member inter-dealer quotation system is changed as a result of an automatic process, then a Quote Status event is only required to be reported by the inter-dealer quotation system.¹³

¹³ Refer to <u>CAT FAQ J5</u> for additional information.

Orders updated directly in an inter-dealer quotation system's platform that are not sent to the inter-dealer quotation system electronically (e.g., via FIX) are considered to be updated manually, and the *manualFlag* must be populated as 'true'.

Table 47: Quote Status Event Field Specifications

Quote Status (MEQS)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MEQS	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	quoteKeyDate	Timestamp	The <i>quoteKeyDate</i> of the Quote event which is being updated.	R
7	quoteID	Text (64)	The <i>quoteID</i> of the Quote event which is being updated.	R
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time the quote status was updated. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	seqNum	Alphanumeric (40)	The sequence number of the quote cancel message. Any alphanumeric not containing a delimiter. Required for inter-dealer quotation systems only.	С
12	mpStatusCode	Choice	Market Participant Status Code, indicates if the market maker's quote is open or closed.	R
13	manualFlag	Boolean	Must be marked as 'true' if the quote is modified manually.	R
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required	С

	Quote Status (MEQS)			
Seq #				
			when <i>manualFlag</i> is 'true' and the event is systematized.	

Quote Key: quoteKeyDate, CATReporterIMID, symbol, quoteID

4.11. Trade

A Trade Event is used when the Industry Member acts as the executing broker and is required to report the trade for public dissemination purposes. When an Industry Member is not required to report the execution of a customer/client order for public dissemination purposes, with the exceptions noted below, an Order Fulfillment event must be used. See Section 4.12 Order Fulfillment for more details.

Reporting Exception Codes

In general, Trade events are required to match to a TRF/ORF/ADF report. However, there are four circumstances when an MEOT would not be able to be linked to a TRF report and a Reporting Exception Code (REC) is required on a Trade event to allow the Processor to identify that there will be no link to a TRF/ORF/ADF report:

- An Industry Member executes a trade between two desks or departments of the same firm, but because there is no change in beneficial ownership, no trade is reported for public dissemination.
 In this instance a REC of "P" should be used on the Trade event.
- An Industry Member executes a trade and must report the trade via Form T. In this instance, a
 REC of "F" should be used on the Trade event.
- A trade was executed by a non-FINRA member firm and was reported to the TRF by the FINRA member counterparty. In this instance, the non-FINRA member must populate a REC of "N" on the Trade event.
- Industry Member was the contra side of the trade report which was reported to a TRF/ORF/ADF via a QSR or AGU, and was therefore unable to populate a tapeTradeID. In this instance, a REC of 'C' should be used on the Trade event to reflect a linkage to the related TRF/ORF/ADF report could not be made. The following rules apply when REC 'C' is used:
 - The marketCenterID field must be populated.
 - The clearingFirm and counterparty fields must be populated.
 - The *cancelFlag* and *cancelTimestamp* must be populated accordingly for all trades that are reported to a TRF via a QSR or AGU and later cancelled, as the CAT would not be able to link to a related TRF cancellation.

FINRA CAT will closely monitor all uses of REC 'C' to ensure compliance with the above noted guidelines.

Trade Side Details

Trade events are two-sided, containing information on both sides of the trade. Exceptions requiring only one side of the Trade event to be populated are noted below. The details of each side are reported using Trade Side Details. The data type Trade Side Details is described as a list of fields in <u>Table 49</u> below. Trade Side Details must contain only one *orderID* per side. The *buyDetails* must contain the *orderID* of the buy side of the trade and the *sellDetails* must contain the *orderID* of the sell side of the trade. If there is more than one *orderID* associated with one side of the trade, the Trade Side Details related to each *orderID* must be populated in a separate Trade Supplement event.

Internalized Trade

When an Industry Member internalizes an order by filling it from a proprietary account, the Industry Member must report the *orderID* on the customer/client side and the FDID and the *accountHolderType* of the proprietary account on the firm side. In this scenario, no *orderID* is required on the firm side of the Trade event. The *capacity* field on the trade event must be 'P' for Principal reflecting the capacity in which the Industry Member acted.

However, if the Industry Member generates a proprietary order to facilitate the execution of the customer/client order, the Industry Member must report the *orderID* of both the customer/client side and the firm side of the Trade event. Refer to CAT FAQ B41 for additional information.

One-Sided Trade events

There are several exceptions which only require one side of a Trade event to be populated. These exceptions include:

- Trade is executed as the result of a negotiation between two Industry Members.
- Order is routed by a FINRA Member to a non-FINRA member, and the FINRA Member has the obligation to submit a media trade report to a TRF/ADF/ORF.
- Order is routed by an Industry Member to a foreign broker-dealer, and the foreign broker-dealer executes the order at a net price, creating a media trade reporting obligation in the United States.

In these scenarios, each party that is required to report a Trade event to CAT must populate the sideDetailsInd indicating which side of the trade the Industry Member was associated with, and which Trade Side Details will be populated in the Trade event.

Cancelled Trades

In accordance with <u>CAT FAQ E25</u>, the *cancelFlag* must be set to true only in instances when a trade is cancelled because the trade report is rejected by the TRF/ORF or ADF. For all instances where a trade is reported to, and accepted by, the TRF/ORF or ADF, including those that are cancelled or busted in the trade reporting data, the *cancelFlag* must be set to false. Refer to <u>CAT FAQ E29</u> and <u>CAT FAQ E30</u> for additional information.

4.11.1. Trade Event

The tables below describe the data elements to report a trade executed by an Industry Member.

Table 48: Trade Event Field Specifications

	Order Trade (MEOT)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEOT	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	tradeKeyDate	Timestamp	The date and time the <i>tradeID</i> was assigned.	R	
7	tradeID	Text (64)	Unique ID assigned to this execution by the Industry Member. This ID will be used in subsequent events when a specific trade needs to be identified. The combination of date, CATReporterIMID, symbol, and tradeID must be unique.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	eventTimestamp	Timestamp	The date/time at which the trade was executed. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
10	manualFlag	Boolean	Must be marked as 'true' if this is a manual	R	

	Order Trade (MEOT)				
Seq #	Field Name	Data Type	Description	Include Key	
44		T. (execution.	0	
11	electronicTimestamp	Timestamp	The time at which the event is systematized.	0	
12	cancelFlag	Boolean	Must be marked as 'true' if the execution is cancelled and was not reported to the TRF/ADF/ORF.	R	
13	cancelTimestamp	Timestamp	When <i>cancelFlag</i> is 'true', the time at which the execution was cancelled. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	С	
14	retiredFieldPosition		Field position is retired and must remain blank.		
15	retiredFieldPosition		Field position is retired and must remain blank.		
16	quantity	Real Quantity	Quantity of the trade.	R	
17	price	Price	The execution price of the trade. Must be greater than or equal to zero.	R	
18	capacity	Choice	The capacity in which the Industry Member acted. Must be 'P' when <i>firmDesignatedID</i> field is populated.	R	
19	tapeTradeID	Text (40)	The unique identifier reported by the Industry Member to the TRF/ADF/ORF based on the reporting specifications of the specific facility, required when the ID was supplied to a transaction reporting system: Compliance ID in ORF and ADF Branch Sequence Number in FINRA/NQ TRF FINRA Compliance Number in FINRA/NYSE TRF Must be unique per combination of Event Date, CATReporterIMID, marketCenterID and symbol. The tapeTradeID may link to either the reporting side or the contra-side of the media tape report. When the reportingExceptionCode field is blank, the tapeTradeID field must be populated. When the reportingExceptionCode field is populated, the tapeTradeID field must be blank.	С	
20	marketCenterID	Choice	The national securities exchange or transaction reporting system operated by FINRA where the trade was reported. When the <i>marketCenterID</i> field is blank, the <i>reportingExceptionCode</i> must be populated with a value other than 'C'. When the <i>marketCenterID</i> field is populated, the <i>reportingExceptionCode</i> field must be blank, or must be populated with a value of 'C'.	С	
21	sideDetailsInd	Choice	Identifies if a Trade event is one sided, and which side of the trade the Industry Member is populating in the Trade Side Details. When sideDetailsInd is 'BUY', only the buyDetails	R	

	Order Trade (MEOT)				
Seq #	Field Name	Data Type	Description	Include Key	
			are populated. When <i>sideDetailsInd</i> is 'SELL', only the <i>sellDetails</i> are populated.		
22	buyDetails	Trade Side Details	See <u>Table 49: Trade Side Details</u> below. Applicable if there is only one <i>orderID</i> associated with this side of the trade. If there is more than one <i>orderID</i> , must be populated in separate MEOTS events.	С	
23	sellDetails	Trade Side Details	See <u>Table 49: Trade Side Details</u> below. Applicable if there is only one <i>orderID</i> associated with this side of the trade. If there is more than one <i>orderID</i> , must be populated in separate MEOTS events.	O	
24	reportingExceptionCode	Choice	Indicates the reason that a unique identifier (e.g., Branch Sequence Number, Compliance ID) was not supplied to a transaction reporting system. Must be provided if the execution is not reported to a FINRA transaction reporting system. When the tapeTradeID field is blank, the reportingExceptionCode field must be populated. When the tapeTradeID field is populated, the reportingExceptionCode field must be blank. When the marketCenterID field is blank, the reportingExceptionCode field must be populated. When the marketCenterID field is populated, the reportingExceptionCode must be blank.	O	
25	seqNum	Alphanumeric (40)	The sequence number assigned to the Reportable Event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	A	
26	nbbPrice	Price	The NBBO at the moment the trade occurred.	Α	
27	nbbQty	Whole Quantity	Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be populated with a	А	
28	nboPrice	Price	value of '0'.	А	
29	nboQty	Whole Quantity		Α	
30	nbboSource	Choice	Source of the NBBO Data Used. If nbboSource is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the nbboTimestamp must be blank.	Α	
31	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	A	
32	retiredFieldPosition		Field position is retired and must remain blank.		
33	clearingFirm	Unsigned	The clearing number of the Industry Member's clearing firm. Required when the reportingExceptionCode is 'C'.	С	
34	counterparty	Industry Member ID	The counterparty to the trade. Required when the reportingExceptionCode is 'C'.	С	

	Order Trade (MEOT)				
Seq #	Field Name	Data Type	Description	Include Key	
35	multiLegInd	Boolean	Indicates when the execution is related to a multileg order event. Refer to Section 5.2 for additional guidance.	R	
36	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С	

Table 49: Trade Side Details

Limited to 1 se	et of details for each side.			
Seq#	Field Name	Data Type	Description	Include Key
<seq>.1.1</seq>	orderKeyDate	Timestamp	Required if <i>orderID</i> is populated. The <i>orderKeyDate</i> of the order on this side.	С
<seq>.1.2</seq>	orderID	Text (64)	The order ID of the order on this side. When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	С
<seq>.1.3</seq>	side	Choice	The side of the trade.	R
<seq>.1.4</seq>	retiredFieldPosition		Field position is retired and must remain blank.	
<seq>.1.5</seq>	firmDesignatedID	Text (40)	Applicable to internalized trades as described in <u>Section 4.11 Trade</u> . Refer to <u>Appendix G: Data Dictionary</u> for definition and guidance for populating this field. The <i>capacity</i> must be 'P' when <i>firmDesignatedID</i> field is populated. When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank.	С
<seq>.1.6</seq>	accountHolderType	Choice	Required if firmDesignatedID is populated. Represents the type of account against which a customer/client order is being filled.	С
<seq>.1.7</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С

The Trade Side Details associated with fields: buyDetails and sellDetails: Limited to 1 set of details for each side.				
Seq#	Field Name	Data Type	Description	Include Key
<seq>.1.8</seq>	BFMMFlag	Boolean	Identifies if a Short Sale order event relies on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO. Only applicable to Market Makers on security-by-security basis. When populated with a value of true, the side field must be populated with the value of 'SS' or 'SX' and the accountHolderType field value must be 'O'.	С

- Order Key: buyDetails.orderKeyDate, CATReporterIMID, symbol, buyDetails.orderID
- Order Key: sellDetails.orderKeyDate, CATReporterIMID, symbol, sellDetails.orderID
- Trade Key: tradeKeyDate, CATReporterIMID, symbol, tradeID
- TRF Linkage Key: Event Date, CATReporterIMID, symbol, tapeTradeID, marketCenterID
- Exchange Trade Linkage Key: Event Date, symbol, tapeTradeID, marketCenterID, side

4.11.2. Trade Supplement Event

The tables below describe the data elements used to report when there is more than one order associated with one side of the trade.

Table 50: Trade Supplement Event Field Specifications

	Order Trade Supplement (MEOTS)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEOTS	R	
5	CATReporterIMID	CAT Reporter	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the	0	

	Order Trade Supplement (MEOTS)				
Seq #	Field Name	Data Type	Description	Include Key	
		IMID	CATReporterIMID in the filename.		
6	tradeKeyDate	Timestamp	The <i>tradeKeyDate</i> of the Trade event which this event is supplementing.	R	
7	tradeID	Text (64)	The <i>tradeID</i> of the Trade event which this event is supplementing.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	eventTimestamp	Timestamp	The date/time at which the trade was executed. This must match the <i>eventTimestamp</i> value reported on the Trade this event supplements (including scenarios in which the supplement is created at a later time).	R	
10	buyDetails	Trade Side Details	Required if the subject order was a buy order. See <u>Table</u> <u>51: Trade Side Details</u> below.	С	
11	sellDetails	Trade Side Details	Required if the subject order was a sell order. See <u>Table 51: Trade Side Details</u> below.	С	
12	multiLegInd	Boolean	Indicates when the execution is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R	

Table 51: Trade Side Details

The Trade Side Details associated with fields: buyDetails and sellDetails: Limited to 1 set of details for each side.				
Seq#	Field Name	Data Type	Description	Include Key
<seq>.1.1</seq>	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the order on this side. Required if <i>orderID</i> is populated.	С
<seq>.1.2</seq>	orderID	Text (64)	The order ID assigned by the Industry Member to the order on this side. When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	С
<seq>.1.3</seq>	side	Choice	The side of the trade.	R
<seq>.1.4</seq>	quantity	Real Quantity	The execution quantity associated with this <i>orderID</i> .	R
<seq>.1.5</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
<seq>.1.6</seq>	firmDesignatedID	Text (40)	Applicable to internalized trades as described in Section 4.11 Trade. Refer to	С

Seq#	Field Name	Data Type	Description	Include Key
			Appendix G: Data Dictionary for definition and guidance for populating this field.	
			When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	
<seq>.1.7</seq>	accountHolderType	Choice	Required if <i>firmDesignatedID</i> is populated. Represents the type of account against which a customer/client order is being filled.	С
<seq>.1.8</seq>	BFMMFlag	BFMMFlag Boolean	Identifies if a Short Sale order event relies on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO. Only applicable to Market Makers on security-by-security basis.	С
			When populated with a value of true, the <i>side</i> field must be populated with the value of 'SS' or 'SX' and the <i>accountHolderType</i> field value must be 'O'.	

- Order Key: buyDetails.orderKeyDate, CATReporterIMID, symbol, buyDetails.orderID
- Order Key: sellDetails.orderKeyDate, CATReporterIMID, symbol, sellDetails.orderID
- Trade Key: tradeKeyDate, CATReporterIMID, symbol, tradeID

4.12. Order Fulfillment

The Order Fulfillment event is used to report the execution of a customer/client order that is not required to be reported for public dissemination purposes.

Order Fulfillment events are required in scenarios where:

- A representative order was used to facilitate the execution of the customer/client order.
- An order is routed to a foreign market and the resulting foreign execution is not captured by CAT.

The Order Fulfillment event is designed to capture the customer/client details and the firm side details. Firm side details provide linkage to the representative order used to facilitate the execution of the customer/client order.

The *fulfillmentLinkType* field is used to indicate if the firm side details are required. <u>Appendix C</u> contains detailed descriptions of representative order scenarios and illustrates when marking of the representative order, linkage between the represented order and the representative order, and Order Fulfillment linkage is required.

4.12.1. Order Fulfillment Event

Table 52: Order Fulfillment Event Field Specifications

	Order Fulfillment (MEOF)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEOF	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	fillKeyDate	Timestamp	The date and time the fulfillmentID was assigned.	R	
7	fulfillmentID	Text (64)	The unique identifier for the fulfillment. The combination of reporter, fillKeyDate, symbol and fulfillmentID must be unique.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	

	Order Fulfillment (MEOF)					
Seq #	Field Name	Data Type	Description	Include Key		
9	eventTimestamp	Timestamp	The date/time when the fulfillment was processed by the Industry Member. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
10	manualFlag	Boolean	Must be marked as 'true' if this is a manual process.	R		
11	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
12	fulfillmentLinkType	Choice	Refer to Appendix C for representative order linkage requirements.	R		
13	cancelFlag	Boolean	Must be marked as 'true' if the fulfillment was cancelled.	R		
14	cancelTimestamp	Timestamp	When cancelFlag is 'true', the time at which the fulfillment was cancelled. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	С		
15	quantity	Real Quantity	Quantity being executed and assigned. It may or may not be the full quantity of the order.	R		
16	price	Price	Price of the executed shares. Must be greater than or equal to zero.	R		
17	capacity	Choice	The capacity in which the Industry Member acted.	R		
18	clientDetails	Fulfillment Side Details	See <u>Table 53: Fulfillment Side Details</u> below.	R		
19	firmDetails	Fulfillment Side Details	Used to capture the Industry Member side order details. Applicable if there is only one <i>orderID</i> associated with this side of the fulfillment.	С		
			If more than one representative order was used to fill the customer/client order, this field must be blank and the firmDetails for each related representative order must be populated in separate MEOFS events. If firmDetails are captured in an MEOFS event, the fulfillmentLinkType field must be populated with a value of 'YS'. See Table 53: Fulfillment Side Details below. Refer to Appendix C for more details.			
20	infoBarrierID	Text (20)	Specifies the identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02. Any alphanumeric not containing a delimiter.	С		

Table 53: Fulfillment Side Details

Fulfillment Side Details

The Fulfillment Side Details associated with fields: *clientDetails* and *firmDetails*. Limited to 1 set of details for each side.

Seq#	Field Name	Data Type	Description	Include Key
<seq>.1.1</seq>	orderKeyDate	Timestamp	Required if <i>orderID</i> is populated. The <i>orderKeyDate</i> of the order on this side.	С
<seq>.1.2</seq>	orderID	Text (64)	The order ID assigned by the Industry Member to the order on this side. When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	С
<seq>.1.3</seq>	side	Choice	The side of the fulfillment.	R
<seq>.1.4</seq>	retiredFieldPosition		Field position is retired and must remain blank.	
<seq>.1.5</seq>	firmDesignatedID	Text (40)	Applicable to firmDetails when fulfillmentLinkType 'YE' is populated, as described in Appendix C. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field. When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	С
<seq>.1.6</seq>	accountHolderType	Choice	Required if <i>firmDesignatedID</i> is populated. Represents the type of account against which a customer/client order is being filled.	O
<seq>.1.7</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С

Linkage Keys for this Reportable Event:

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, symbol, firmDetails.orderID
- Order Key: clientDetails.orderKeyDate, CATReporterIMID, symbol, clientDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, symbol, fulfillmentID

4.12.2. Order Fulfillment Supplement Event

The tables below describe the data elements used to report a customer/client order filled from multiple representative orders. Only one *orderID* may be represented in each Order Fulfillment Supplement event. If multiple representative orders were used to fill a customer/client order, the *orderID* for each representative order must be populated in its own Order Fulfillment Supplement event.

Table 54: Order Fulfillment Supplement Event Field Specifications

	Order Fulfillment Supplement (MEOFS)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MEOFS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0		
6	fillKeyDate	Timestamp	The fillKeyDate of the Order Fulfillment event which this event is supplementing.	R		
7	fulfillmentID	Text (64)	The fulfillmentID of the Order Fulfillment event which this event is supplementing.	R		
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R		
9	eventTimestamp	Timestamp	The date/time at which the fulfillment was processed by the Industry Member. This must match the eventTimestamp value reported on the Order Fulfillment this event supplements (including scenarios in which the supplement is created at a later time).	R		
10	firmDetails	Fulfillment Side Details	Used to capture the Industry Member side order details. See <u>Table 55: Fulfillment Side Details</u> below. Refer to <u>Appendix C</u> for more details.	R		

Table 55: Fulfillment Side Details

	Fulfillment Side Details					
	The Fulfillment Side Details associated with fields: <i>firmDetails</i> Limited to 1 set of details.					
Seq # Field Name Data Type Description K						
<seq>.1.1</seq>	orderKeyDate	Timestamp	The orderKeyDate of the order on this side.	R		
<seq>.1.2</seq>	orderID	Text (64)	The order ID assigned by the Industry Member to the order on this side.	R		
<seq>.1.3</seq>	side	Choice	The side of the trade.	R		
<seq>.1.4</seq>	quantity	Real Quantity	The execution quantity associated with this orderID.	R		

	Fulfillment Side Details					
	The Fulfillment Side Details associated with fields: firmDetails Limited to 1 set of details.					
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.5</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, symbol, firmDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, symbol, fulfillmentID

4.12.3. Order Fulfillment Amendment Event

This CAT event is used to report the amendment of a previously reported fulfillment that occurs on the same day or on a subsequent day. An Order Fulfillment Amendment event is required to be reported to CAT if the fill to the customer/client was changed after the final fulfillment had been provided to the customer/client. This Reportable Event must capture the entire state of the fulfillment after it has been amended, even though some of the data elements may remain unchanged. However, Side Details are only required to be restated if changed. When the *fulfillmentLinkType* value 'YS' is used, Side Details must be restated using an MEOFS event if changed.

Order Fulfillment Amendments are not required in scenarios where:

- Executions against an order are tracked throughout the day but a single average price fill is provided to the customer/client after the order is completed or at the end of the day. Some systems may provide intraday transparency to the progress of executing an order as informal information that is not considered by the firm to be 'final' fulfillments, and these should not be reported to CAT as fulfillments and fulfillment amendments. Refer to CAT FAQ B64 for additional information.
- An Industry Member makes a correction via a debit/credit to the customer's/client's account instead of modifying the executed shares given back to the customer/client.
- Changes do not impact CAT reportable attributes of the fulfillment.

Table 56: Order Fulfillment Amendment Event

Order Fulfillment Amendment (MEFA) Seq Include Field Name **Data Type Description** Key actionType Choice Indicates whether the event is a new event, a firm R initiated correction or a repair of a CAT error. 2 errorROEID Unsigned Required when actionType is 'RPR'. Must be blank when С actionType is 'NEW'. 3 firmROEID Text (64) An identifier assigned to the record by the reporting firm. R 4 Message **MEFA** R type Type 5 CATReporterIMID CAT The SRO-assigned identifier that an Industry Member 0 Reporter uses to report to CAT. If populated, must equal the IMID CATReporterIMID in the filename. When a new Fulfillment Key is assigned, the date and 6 fillKeyDate Timestamp R time the fulfillmentID was assigned. When a new Fulfillment Key is not assigned, the fillKeyDate of the fulfillment event being modified. 7 fulfillmentID Text (64) When a new Fulfillment Key is assigned, the internal R fulfillment ID assigned to the fulfillment event by the Industry Member. Must be unique within fillKeyDate. CATReporterIMID, and symbol combination. When a new Fulfillment Key is not assigned, the fulfillmentID of the fulfillment event being modified. 8 Timestamp С priorFillKeyDate In cases when a new fulfillmentID is assigned, the priorFillKeyDate is the fillKeyDate of the fulfilment that is being modified. Required if *priorFulfillmentID* is populated. 9 priorFulfillmentID Text (64) If a new fulfillment ID is assigned, this is the fulfillmentID С of the event being modified. The symbol of the stock in the symbology of the primary 10 Symbol R symbol listing exchange or FINRA for OTC Equity Securities. 11 CAT An identifier used in instances of a merger or acquisition originatingIMID Reporter where the originating firm had open limit orders on its IMID books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. 12 eventTimestamp Timestamp The date/time when the fulfillment was processed by the Industry Member. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false'. timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Boolean Must be marked as 'true' if this is a manual process. R 13 manualFlag 14 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 15 Real Quantity being executed and assigned. It may or may R quantity

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not be the full quantity of the order.

Quantity

	Order Fulfillment Amendment (MEFA)					
Seq #	Field Name	Data Type	Description	Include Key		
16	capacity	Choice	The capacity in which the Industry Member acted.	R		
17	price	Price	Price of the executed shares. Must be greater than or equal to zero.	R		
18	fulfillmentLinkType	Choice	Refer to Appendix C for representative order linkage requirements.	R		
19	clientDetails	Fulfillment Side Details	Refer to Fulfillment Side Details in <u>Table 53: Fulfillment Side Details</u> . Required if changed.	С		
20	firmDetails	Fulfillment Side Details	Refer to Fulfillment Side Details in <u>Table 53: Fulfillment Side Details</u> . Required if changed.	С		

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, symbol, firmDetails.orderID
- Order Key: clientDetails.orderKeyDate, CATReporterIMID, symbol, clientDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, symbol, fulfillmentID
- Prior Fulfillment Key: priorFillKeyDate, CATReporterIMID, symbol, priorFulfillmentID

4.13. Allocations

Industry Members that perform allocations are required to submit a Post-Trade Allocation event to CAT any time shares are allocated to a customer account regardless of whether the Industry Member was involved in executing the underlying order(s). Refer to <u>Section 3.3</u> for additional information on the requirements for reporting allocation events to CAT.

4.13.1. Post-Trade Allocation Event

Table 57: Post-Trade Allocation Event Field Specifications

	Post-Trade Allocation (MEPA)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MEPA	R	

	Post-Trade Allocation (MEPA)						
Seq #	Field Name	Data Type	Description	Include Key			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT.	0			
6	allocationKeyDate	Timestamp	The date and time the allocationID was assigned.	R			
7	allocationID	Text (64)	The internal allocation ID assigned to the allocation event by the Industry Member. The combination of CATReporterIMID, allocationKeyDate, symbol and allocationID must be unique.	R			
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R			
9	eventTimestamp	Timestamp	The date/time the shares allocated are booked into the customer's/client's account. Timestamp must be reported to seconds or a finer increment up to nanoseconds.	R			
10	cancelFlag	Boolean	Must be marked as 'true' if the allocation was cancelled.	R			
11	cancelTimestamp	Timestamp	When <i>cancelFlag</i> is 'true', the time at which the allocation was cancelled.	С			
12	quantity	Real Quantity	Quantity being allocated.	R			
13	price	Price	Price of the allocated shares. Must be greater than or equal to zero.	R			
14	side	Choice	The side of customer/client receiving the allocation.	R			
15	firmDesignatedID	Text (40)	The FDID of the account receiving the allocation, including subaccounts. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R			
16	retiredFieldPosition		Field position is retired and must remain blank.				
17	institutionFlag	Boolean	Indicates if the account meets the definition of institution under FINRA Rule 4512I.	R			
18	tradeDate	Date	The trade date of the securities being allocated. Used to validate the <i>symbol</i> field on this event.	R			
19	settlementDate	Date	The settlement date of the securities being allocated. Not required for when-issued securities.	С			
20	allocationType	Choice	Indicates the type of allocation being made (e.g., custody, DVP, step out, correspondent flip).	R			
21	DVPCustodianID	Text (40)	Required when <i>allocationType</i> is 'DVP' or 'DVPF'. If the custodian is a US broker-dealer, this field must be populated with the clearing number of the custodian. If the custodian is a bank and is not a registered	С			
			broker-dealer, this field must be populated with the DTC number of the bank. If there is no clearing number or DTC number, this				
			field must be populated with a value of 'FOREIGN'.				

	Post-Trade Allocation (MEPA)				
Seq #	Field Name	Data Type	Description	Include Key	
			Refer to <u>CAT FAQ U19</u> for additional guidance.		
22	correspondentCRD	Unsigned	The CRD number of the related Introducing Broker or Correspondent firm, if applicable.	С	
23	newOrderFDID	Text (40)	The FDID of the related New Order event, if available in the booking system. Requirements for populating this field may be expanded in future phases of CAT.	С	
24	allocationInstructionTime	Timestamp	The date/time the time the allocation instruction was received.	0	
25	retiredFieldPosition		Field position is retired and must remain blank.		
26	accountHolderType	Choice	Represents the type of beneficial owner of the account to which the shares were allocated.	R	

• Allocation Key: allocationKeyDate, CATReporterIMID, symbol, allocationID

4.13.2. Amended Allocation Event

An Amended Allocation event is used to report to CAT when an allocation is updated such that a CAT reportable attribute is changed after the shares/contracts were originally booked in a customer account, and must always reflect the current state of the allocation. This Reportable Event must capture the entire state of the allocation after it has been amended, even though some of the data elements may remain unchanged.

Changes to CAT reportable attributes of an allocation after the original booking of shares/contracts are required to be reported to CAT as either an Allocation Amendment event or the cancellation of a Post-Trade Allocation event followed by a new Post-Trade Allocation event regardless if they occur presettlement or post-settlement.

Since changes to an allocation may occur any time after the original booking, the Amended Allocation event is due at 8AM on the next CAT Trading Day after the change was booked, even if it is on a different day than the original Allocation event. Refer to CAT FAQ U14 for additional information.

Amended Allocation events must not be reported to CAT in scenarios where:

- An Industry Member makes a correction via a debit/credit to the customer's/client's account instead of modifying the allocation given to the customer/client.
- Changes do not impact CAT reportable attributes of the allocation.

Any changes to the FDID that the shares/contracts were originally booked to may be reported as either an Amended Allocation event or the cancellation of a Post-Trade Allocation event followed by a new Post-Trade Allocation event regardless if they occur pre-settlement or post-settlement.

Amended Allocation events must not be used to correct ingestion errors on a previously submitted MEPA/MEAA event.

Table 58: Amended Allocation Event Field Specifications

	Amended Allocation (MEAA)						
Seq #	Field Name	Data Type	Description	Include Key			
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R			
2	errorROEID	Unsigned	Required when actionType is 'RPR'	С			
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R			
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>				
			Must be unique for the Event Date and CAT Reporter IMID.				
4	type	Message Type	MEAA	R			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT.	0			
6	allocationKeyDate	Timestamp	When a new Allocation Key is assigned, the date and time the <i>allocationID</i> was assigned.	R			
			When a new Allocation Key is not assigned, the allocationKeyDate of the allocation event being modified.				
7	allocationID	Text (64)	When a new Allocation Key is assigned, the internal allocation ID assigned to the allocation event by the Industry Member. Must be unique within allocationKeyDate, CATReporterIMID, and symbol combination.	R			
			When a new Allocation Key is not assigned, the allocationID of the allocation event being modified.				
8	priorAllocationKeyDate	Timestamp	In cases when a new allocationID is assigned, the priorAllocationKeyDate is the allocationKeyDate of the allocation event that is being modified. Required if priorAllocationID is populated.	С			
9	priorAllocationID	Text (64)	If a new allocation ID is assigned, this is the allocationID of the event being modified.	С			
10	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R			
11	eventTimestamp	Timestamp	The date/time the time the allocation amendment was processed. Timestamp must be reported to	R			

	Amended Allocation (MEAA)					
Seq #	Field Name	Data Type	Description	Include Key		
			seconds or a finer increment up to nanoseconds.			
12	quantity	Real Quantity	Quantity being allocated.	R		
13	price	Price	Price of the allocated shares. Must be greater than or equal to zero.	R		
14	side	Choice	The side of customer receiving the allocation.	R		
15	firmDesignatedID	Text (40)	The FDID of the account receiving the allocation, including subaccounts. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R		
16	retiredFieldPosition		Field position is retired and must remain blank.			
17	institutionFlag	Boolean	Indicates if the account meets the definition of institution under FINRA Rule 4512(c).	R		
18	tradeDate	Date	The trade date of the securities being allocated. Used to validate the <i>symbol</i> field on this event.	R		
19	settlementDate	Date	The settlement date of the securities being allocated. Not required for when-issued securities.	С		
20	allocationType	Choice	Indicates the type of allocation being made (e.g., custody, DVP, step out, correspondent flip).	R		
21	DVPCustodianID	Text (40)	Required when <i>allocationType</i> is 'DVP' or 'DVPF'. If the custodian is a US broker-dealer, this field must be populated with the clearing number of the custodian. If the custodian is a bank and is not a registered broker-dealer, this field must be populated with the DTC number of the bank. If there is no clearing number or DTC number, this field must be populated with a value of 'FOREIGN'. Refer to <u>CAT FAQ U19</u> for additional guidance.	С		
22	correspondentCRD	Unsigned	The CRD number of the related Introducing Broker or Correspondent firm, if applicable.	С		
23	newOrderFDID	Text (40)	The FDID of the related New Order event, if available in the booking system. Requirements for populating this field may be expanded in future phases of CAT.	С		
24	allocationInstructionTime	Timestamp	The date/time the time the allocation amendment instruction was received.	0		
25	cancelFlag	Boolean	Must be marked as 'true' if the allocation was cancelled.	R		
26	cancelTimestamp	Timestamp	When cancelFlag is 'true', the time at which the allocation was cancelled.	С		
27	retiredFieldPosition		Field position is retired and must remain blank.			

	Amended Allocation (MEAA)				
Seq #	Field Name	Data Type	Description	Include Key	
28	accountHolderType	Choice	Represents the type of beneficial owner of the account to which the shares were allocated.	R	

- Allocation Key: allocationKeyDate, CATReporterIMID, symbol, allocationID
- Prior Allocation Key: priorAllocationKeyDate, CATReporterIMID, symbol, priorAllocationID

4.14. Order Effective Event

The Order Effective event is used to indicate that an order, or an underlying condition of an order, has become effective. This event is applicable to orders such as conditional (Refer to <u>FAQ D26</u>), Stop, Stop Limit, Trailing Stop, Trailing Stop Limit, Stop on Quote, and Stop Limit on Quote orders. This event is NOT applicable to Stop Stock transactions. The Order Effective event must be reported by the party that was holding the order at the time the order or condition became effective.

If the triggering event causing the order to become effective was a specific price, such as a stop price, the *triggerPrice* field must be populated in scenarios where the trigger price was not explicitly captured in the *handlingInstructions* field on the related new order (e.g., Stop Formula, Trailing Stop). In scenarios where the stop price was captured in prior CAT events associated with the order (e.g., as a Name/Value pair in *handlingInstructions* on MENO and/or MEOA events), then the information may be optionally restated in the *triggerPrice* field on the Order Effective event; however, it is not required to be reported again.

If a new order ID is generated when the order becomes effective, which replaces the prior order ID, the *orderID* field must capture the new order ID, and the priorOrderID field must reflect the order ID that is being replaced. If the *orderID* remains the same when the order becomes effective, the *priorOrderID* and *priorOrderKeyDate* must remain blank.

Table 59: Order Effective Event Field Specifications

	Order Effective (MEOE)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			

Order Effective (MEOE)					
Seq #	Field Name	Data Type	Description	Include Key	
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MEOE	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the CAT event which is being	R	
7	orderID	Text (64)	modified. When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and symbol combination. When a new Order Key is not assigned, the orderID of the Order Modified (Cancel/Replace) event which is being modified.	R	
8	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities.	R	
9	priorOrderKeyDate	Timestamp	If a new Order Key has been assigned, this is the orderKeyDate of the event being modified.	С	
10	priorOrderID	Text (64)	If a new Order Key has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	С	
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С	
12	eventTimestamp	Timestamp	The date/time the order or underlying condition became effective.	R	
13	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g., DAY, IOC, GTC).	R	
14	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
15	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
16	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell). Required if the field changed when the order or underlying condition became effective.	С	
17	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required if the field	С	

	Order Effective (MEOE)					
Seq #	Field Name	Data Type	Description	Include Key		
			changed when the order became effective.			
18	quantity	Real Quantity	The order quantity. Required if the field changed when the order or underlying condition became effective.	С		
19	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if the field changed when the order or underlying condition became effective.	С		
20	orderType	Choice	The type of order being submitted (e.g., market, limit). Required if the field changed when the order became effective.	R		
21	seqNum	Alphanumeric (40)	The sequence number assigned to the CAT event by the ATS's matching engine. Any alphanumeric not containing a delimiter.	А		
22	atsDisplayInd	Choice	Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	A		
23	displayPrice	Price	The displayed price of the order. When provided, must be greater than or equal to zero.	С		
			Required when applicable and the field changed when the order or underlying condition became effective.			
24	workingPrice	Price	The working price of the order. When provided, must be greater than or equal to zero. Required when applicable and the field changed when the order or underlying condition became effective.	С		
25	displayQty	Whole Quantity	The displayed quantity for this order. Required when applicable and the field changed when the order or underlying condition became effective.	С		
26	nbbPrice	Price	The NBBO at the moment the order was originated or	Α		
27	nbbQty	Whole Quantity	received. Prices are required, quantities are optional. When provided, must be greater than or equal to zero. If no price or quantity, fields must be populated	А		
28	nboPrice	Price	with a value of '0'.	Α		
29	nboQty	Whole Quantity		Α		
30	nbboSource	Choice	Source of the NBBO data used. If <i>nbboSource</i> is 'NA', NBBO price and quantity fields must be populated with a value of '0' and the <i>nbboTimestamp</i> must be blank.	A		
31	nbboTimestamp	Timestamp	The date/time at which the NBBO was referenced upon the receipt of the order. Must be blank if nbboSource is 'NA'.	А		
32	triggerPrice	Price	The price at which the order became effective. Required in scenarios where the trigger price was not explicitly captured in the <i>handlingInstructions</i> field on the related new order (e.g., Stop Formula, Trailing Stop)	С		

Order Effective (MEOE)				
Seq #	Field Name	Data Type	Description	Include Key
33	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	O

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, symbol, priorOrderID

5. Option Events

This section describes Reportable Events for option transactions, including single leg option events and multi-leg option events. The following tables list each option Reportable Event type with its corresponding Message Type code.

Fields specified as Reserved for Future Use are greyed out and must remain blank. Future enhancements to Message Types with positions that are Reserved for Future Use will occupy the available position before adding a new position.

Table 60: Summary of Simple Option Events

Section	Event	Message Type	Description
5.1.1	New Option Order	MONO	Event used to report new option orders to CAT.
5.1.2	Option Order Supplement	MONOS	Supplement to the New Option Order event, used when the New Option Order event exceeds the maximum length allowed, or when the orders being combined are not captured in the New Option Order Event. Also used to provide an FDID once known if not available at time of reporting a MONO.
5.1.3	Option Order Route	MOOR	Reported to CAT by an Industry Member that has routed an option order to another Industry Member or an exchange.
5.1.3.1	Option Route Modified	MOMR	Reported when an Industry Member modifies a simple option route that was sent to another broker-dealer or exchange.
5.1.3.2	Option Route Cancelled	MOCR	Reported when an Industry Member cancels a simple option route that was sent to another broker-dealer or exchange.
5.1.3.3	Option Order Route Supplement	MOORS	Supplement to the Option Order Route event, optionally used when the status of the <i>routeRejectedFlag</i> is not reported on the MOOR event itself, because the firm chooses to report it using this separate event.
5.1.3.4	Option Route Modified Supplement	MOMRS	Supplement to the Option Route Modified event, optionally used when the status of the <i>routeRejectedFlag</i> is not reported on the MOMR event itself, because the firm chooses to report it using this separate event.
5.1.3.5	Option Route Cancelled Supplement	MOCRS	Supplement to the Option Route Cancelled event, optionally used when the status of the <i>routeRejectedFlag</i> is not reported on the MOCR event itself, because the firm chooses to report it using this separate event.
5.1.3.4	Option Order Accepted	MOOA	Reported when an Industry Member accepts a single-leg option order routed from another Industry Member or an exchange.
5.1.5.1	Option Order Internal Route Accepted	MOIR	Reported when an order is internally routed from where it was accepted or originated to another desk or other internal destination.
5.1.5.2	Option Order Internal Route Modified	MOIM	Reported when an Industry Member modifies an option internal route.
5.1.5.3	Option Order Internal Route	MOIC	Reported when an Industry Member cancels an option internal route.

Section	Event	Message Type	Description
	Cancelled		
5.1.5.4	Option Order Internal Route Modification Request	MOIMR	Reported when a modification to an internal route was requested.
5.1.5.5	Option Order Internal Route Cancel Request	MOICR	Reported when the cancellation of an internal route was requested.
5.1.6.1	Child Option Order	МОСО	Reported to represent instances when an order is sliced within the desk or department it is being worked, and is assigned a new order identifier.
5.1.6.2	Child Option Order Modified	MOCOM	Reported when a Child Option Order is modified.
5.1.6.3	Child Option Order Cancelled	MOCOC	Reported when a Child Option Order is cancelled.
5.1.7	Option Order Modified	MOOM	Reported when changes to the Material Terms of an order are made, or an order is cancel/replaced.
5.1.7.1	Option Order Modified Supplement	MOOMS	Used for certain aggregated orders in addition to the Option Order Modified event.
5.1.7.2	Option Order Modification Request	MOOMR	Reported when a request to modify a simple option order is received.
5.1.8	Option Order Adjusted	MOOJ	Used to report simple order modifications including changes to the price or quantity of the order.
5.1.9	Option Order Cancelled	MOOC	Reported when an order is fully or partially cancelled.
5.1.9.1	Option Order Cancel Request	MOOCR	Reported when a request to cancel a simple option order is received.
5.1.10.1	New Option Quote	MONQ	Reported when quotations in options Eligible Securities are originated that are ultimately sent to a quote display facility or RFQ platform.
5.1.10.2	Option Routed Quote	MORQ	Reported when quotations in option Eligible Securities are sent to a quote display facility or RFQ platform.
5.1.10.3	Option Quote Received	MOQR	Reported when an option quote is received by an Industry Member.
5.1.10.4	Option Quote Cancelled	MOQC	Reported when an option quote is cancelled.
5.1.10.5	Option Quote Modified	MOQM	Reported when an option quote is modified and the venue supports more than one quote per symbol for an Industry Member at one time.
5.1.11	Option Trade	MOOT	Reported when a simple option order or the option leg of a multi-leg/complex order is manually executed on an options trading floor.
5.1.13.1	Option Order Fulfillment	MOOF	Reports the fill of a customer/client order in a combined option order scenario.
5.1.13.2	Option Order Fulfillment	MOOFS	Reported when there is more than one options combined order associated with the fill of a customer/client order.

Section	Event	Message Type	Description
	Supplement		
5.1.14	Option Order Fulfillment Amendment	MOFA	Reports how an order fulfillment was amended.
5.1.14	Option Post-Trade Allocation	MOPA	Reports how option positions (executed contracts) are allocated to end customer accounts and sub-accounts by clearing firms during post-trade processing.
5.1.15	Option Amended Allocation	MOAA	Reports an amendment to a previously reported allocation.
5.1.16	Option Order Effective	MOOE	Reported when an order or an underlying condition of an order becomes effective.

Table 61: Summary of Multi-Leg Option Events

Section	Event	Message Type	Description
5.2.1	Multi-Leg New Order	MLNO	Event used to report new Multi-Leg option orders to CAT.
5.2.2	Multi-Leg Order Route	MLOR	Reported to CAT by an Industry Member that has routed a Multi-Leg option order to another Industry Member or an exchange.
5.2.2.1	Multi-Leg Route Modified	MLMR	Reported when an Industry Member modifies a Multi-Leg option route that was sent to another broker-dealer or exchange.
5.2.2.2	Multi-Leg Route Cancelled	MLCR	Reported when an Industry Member cancels a Multi-Leg option route that was sent to another broker-dealer or exchange.
5.2.3	Multi-Leg Order Accepted	MLOA	Reported when an Industry Member accepts a Multi-Leg option order routed from another Industry Member.
5.2.4.1	Multi-Leg Order Internal Route Accepted	MLIR	Reported when changes to the Material Terms of an order are made, or an order is cancel/replaced.
5.2.4.2	Multi-Leg Order Internal Route Modified	MLIM	Reported when an Industry Member modifies a Multi-Leg option internal route.
5.2.4.3	Multi-Leg Order Internal Route Cancelled	MLIC	Reported when an Industry Member cancels a Multi-Leg option internal route.
5.2.4.4	Multi-Leg Order Internal Route Modification Request	MLIMR	Reported when a modification to an internal route was requested.
5.2.4.5	Multi-Leg Order Internal Route Cancel Request	MLICR	Reported when the cancellation of an internal route was requested.
5.2.4.2	Multi-Leg Child Order	MLCO	Reported to represent instances when a Multi-Leg order is sliced within the desk or department it is being worked, and is assigned a new order identifier.
5.1.6.2	Multi-Leg Child Order Modified	MLCOM	Reported when a Multi-Leg Child Order is modified.
5.1.6.3	Multi-Leg Child Order Cancelled	MLCOC	Reported when a Multi-Leg Child Order is cancelled.

Section	Event	Message Type	Description
5.2.6	Multi-Leg Order Modified	MLOM	Reported when changes to the Material Terms of a Multi- Leg order are made, when a Multi-Leg order is cancel/replaced, or when a Multi-Leg order is partially cancelled.
5.2.6.1	Multi-Leg Order Modification Request	MLOMR	Reported when the modification of a Multi-Leg options order was requested.
5.2.7	Multi-Leg Order Cancelled	MLOC	Reported when an order is fully cancelled.
5.2.7.1	Multi-Leg Order Cancel Request	MLOCR	Reported when the cancellation of a Multi-Leg options order was requested.
5.2.8.1	Multi-Leg New Quote	MLNQ	Reported when multi-leg quotations in Eligible Securities are originated that are ultimately sent to a quote display facility or RFQ platform
5.2.8.2	Multi-Leg Routed Quote	MLRQ	Reported when multi-leg quotations in Eligible Securities are sent to a quote display facility or RFQ platform.
5.2.8.3	Multi-Leg Quote Supplement	MLQS	Reported when a Multi-Leg quote is being supplemented with additional information.
5.2.8.4	Multi-Leg Quote Received	MLQR	Reported when a multi-leg quote is received by an Industry Member.
5.2.8.5	Multi-Leg Quote Cancelled	MLQC	Reported when a multi-leg quote is cancelled.
5.2.8.6	Multi-Leg Quote Modified	MLQM	Reported when a multi-leg quote is modified and the venue supports more than one quote per symbol for an Industry Member at one time.
5.2.9	Multi-Leg Order Supplement	MLOS	Reported when a Multi-Leg order is being supplemented with additional information.
5.2.10	Multi-Leg Order Effective	MLOE	Reported when a Multi-Leg order or an underlying condition of a Multi-Leg order becomes effective.

5.1. Simple Option Events

5.1.1. New Option Order Event

An Industry Member must report a New Option Order event to CAT when an order is received or originated. This includes:

- New customer orders
- Combined orders
- Proprietary orders
- Order(s) received from a non-reporting foreign broker-dealer or affiliate.

An order received from another CAT Reporter (US broker-dealer or an exchange) must be reported as an Option Order Accepted event.

Combined Orders

Industry Members are required to populate a *representativeInd* value of "O" in scenarios where the Industry Member, subject to applicable SRO rules, combines individual, simple option orders from customers before routing to an exchange as a single, simple order for execution. Explicit linkage is required between the combined order and the original customer orders through the *aggregatedOrders* field.

Industry Members are required to populate a *representativeInd* value of "OS" when the number of combined orders included in the *aggregatedOrders* field causes the New Option Order event to exceed the maximum allowed message length, or when the orders being represented are not captured in the New Option Order event.

Table 62: New Option Order Event Field Specifications

	New Option Order (MONO)				
Seq#	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MONO	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R	
7	orderID	Text (64)	The internal order ID assigned to the order by the Industry Member. Must be unique within same date, CATReporterIMID, and optionID combination.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	eventTimestamp	Timestamp	The date/time of receipt of the order. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
10	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R	

	New Option Order (MONO)					
Seq#	Field Name	Data Type	Description	Include Key		
11	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С		
12	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual New Option Order event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order.	С		
13	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	deptType	Choice	This is the category of internal department, unit or desk originating the order.	R		
16	side	Choice	The side of the order.	R		
17	price	Price	The limit price of the order per contract. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
18	quantity	Real Quantity	The quantity of contracts.	R		
19	minQty	Whole Quantity	The minimum quantity of contracts to be executed.	С		
20	orderType	Choice	The type of order being submitted.	R		
21	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
22	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
23	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
24	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R		
25	accountHolderType	Choice	Represents the type of beneficial owner of the account for which the order was received or originated.	R		
26	affiliateFlag	Boolean	Indicates if the routing party is an affiliate of the Industry Member.	R		
27	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being combined. Refer to Appendix C for representative order linkage requirements.	С		
	Aggregated Orders – Start For each order being combined <i>n</i> , the following values are required.					
27.n.1	orderID	Text (64)	orderID of the order being combined.	R		
27.n.2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R		

	New Option Order (MONO)					
Seq#	Field Name	Data Type	Description	Include Key		
27.n.3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С		
27.n.4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
Aggreg	ggregated Orders – End					
28	solicitationFlag	Boolean	Indicates if the order was originated in response to an RFQ or other solicitation process. This field is not used to indicate if a registered	R		
			representative of the firm solicited a customer/client order.			
29	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С		
30	representativeInd	Choice	Indicates if the order is a combined order.	R		
31	retiredFieldPosition		Field position is retired and must remain blank.			
32	RFQID	Text (64)	For New Option Order events representing a response to an RFQ or solicitation, the ID assigned to the related RFQ or solicitation being responded to. Must be populated when available.	С		
33	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, optionID, aggregatedOrders.orderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, optionID, manualOrderID

5.1.2. Option Order Supplement Event

The Option Order Supplement event is a supplement to the New Option Order event. One New Option Order event can have multiple Option Order Supplement events. Multiple Option Order Supplement events are considered additions, not replacements or modifications.

This event accommodates reporting in the following scenarios:

Aggregated Orders

The Option Order Supplement can be used in scenarios when the New Option Order event exceeds the maximum length allowed, or when the orders being combined are not captured in the New Option Order event.

The *aggregatedOrders* field in the Option Order Supplement event must contain the additional Aggregated Orders that were not captured in the original New Option Order event, or another Supplement event for the same order.

FDID

This event accommodates reporting in scenarios when an Industry Member receives an order for a new account and the new account number, on which the FDID is based, is not yet available for creation and reporting of the CAT new order event. If an FDID has not yet been created when an order has been received, the Industry Member must populate the *firmDesignatedID* field in its New Option Order event with a value of 'PENDING'.

Once the FDID becomes available, the Industry Member must report the actual FDID in the *firmDesignatedID* field in an Option Order Supplement event. Any Option Order Supplement event with an FDID populated will not be considered late for CAT reporting purposes if it is received by T+3 @ 8:00 AM ET.

Table 63: Option Order Supplement Event Field Specifications

	Option Order Supplement (MONOS)				
Seq#	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MONOS	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related New Option Order event which this event is Supplementing.	R	
7	orderID	Text (64)	The orderID of the related New Option Order event which this event is Supplementing. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	

	Option Order Supplement (MONOS)					
Seq#	Field Name	Data Type	Description	Include Key		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
10	eventTimestamp	Timestamp	The date/time of the related New Option Order event this event supplements (including scenarios in which the supplement is created at a later time).	R		
11	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being combined. Refer to Appendix C for combined order linkage requirements.	С		
	ated Orders – Start h order being combined <i>i</i>	n, the following values a	are required.			
11. <i>n</i> .1	orderID	Text (64)	orderID of the order being combined.	R		
11. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R		
11. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С		
11. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
Aggreg	ated Orders – End					
12	retiredFieldPosition		Field position is retired and must remain blank.			
13	retiredFieldPosition		Field position is retired and must remain blank.			
14	firmDesignatedID	Text (40)	Required when reporting a supplement to an MONO event that was reported prior to the FDID being available. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	С		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, optionID, aggregatedOrders.orderID

5.1.3. Option Order Route Event

An Industry Member must report to CAT an Option Order Route Event when:

- Routing to another Industry Member
- Routing to exchanges
- Routing between two IMIDs (e.g., two different FINRA MPIDs) attributed to the same legal entity (i.e., the same CRD)

In order for CAT to maintain order lifecycle linkage, the *orderID* populated in the Option Order Route event must reference the most recent internal ID of the order. For example, if an order was modified before routing out, the Route Event must use the ID assigned on the order modification.

Internal routes to another desk or department within an Industry Member are not reported using the Option Order Route event; instead an Option Order Internal Route Accepted event is used. See the Option Order Internal Route Accepted section for more details.

Handling Instructions on the Option Order Route

The handling instructions included in this event must represent the handling instructions sent by the routing firm to the receiving destination. If the handling instructions do not change when the order is routed externally from the handling instructions received by the Industry Member and reported on the Option Order Accepted or New Option Order associated with the order, Industry Members may use the *handlingInstructions* value 'RAR' (Routed as Received) instead of repeating each individual handling instruction.

Table 64: Option Order Route Event Field Specifications

	Option Order Route (MOOR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOOR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		

	Option Order Route (MOOR)					
Seq #	Field Name	Data Type	Description	Include Key		
6	orderKeyDate	Timestamp	The orderKeyDate of the event which is being routed.	R		
7	orderID	Text (64)	The orderID of the event which is being routed.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time of the route. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R		
12	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
13	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true'.	С		
14	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the order, known by the destination. When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Option Order Accepted event.	O		
15	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and must equal the receiverIMID field on the Option Order Accepted event reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and must equal the exchange field on the Option Order Accepted event reported by the destination exchange.	С		
16	destinationType	Choice	Indicates whether the destination of the route is an Industry Member, or an exchange.	R		
17	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the order to another Industry Member or exchange. This value must match the value for routedOrderID reported by the destination in their Option Order Accepted event. Must be unique per combination of Event Date, optionID, destination, senderIMID, and session (applicable only on routes to exchanges).	С		

	Option Order Route (MOOR)					
Seq #	Field Name	Data Type	Description	Include Key		
			Required when destinationType is 'F' or 'E' and manualFlag is 'false'.			
18	session	Text (40)	The session ID used when routing the order. Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.	С		
19	side	Choice	The side of the order.	R		
20	price	Price	The limit price per contract included on the order when routed. When provided, must be greater than or equal to zero.	С		
			Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.			
21	quantity	Real Quantity	The quantity of contracts included on the order when routed.	R		
22	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if included on the order when routed.	С		
23	orderType	Choice	The type of order being routed.	R		
24	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
25	tradingSession	Choice	The trading session(s) during which an order is eligible to trade	R		
26	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
27	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R		
28	exchOriginCode	Text (4)	The code signifying the origin of the account as sent to the exchange. Required when destinationType is 'E'.	С		
29	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate of the Industry Member.	R		
30	multiLegInd	Boolean	Indicates when the order being routed is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R		
31	openCloseIndicator	Choice	Indicates when exchange rules require an order to be marked as open or close upon entry into the exchange.	С		
32	retiredFieldPosition		Field position is retired and must remain blank.			
33	retiredFieldPosition		Field position is retired and must remain blank.			
34	pairedOrderID	Text (64)	If the order was routed as a pair, the internal identifier assigned to all orders included in the paired route.	С		
35	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When	С		

	Option Order Route (MOOR)				
Seq #					
			netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, optionID, session, routedOrderID

5.1.3.1. Option Route Modified Event

Industry Members must report an Option Route Modified event to CAT when the Material Terms of a route have been changed (e.g., price, quantity), or when an option route is cancel/replaced.

All attributes and Material Terms of the route listed on this event must be restated with the modification(s) reflected. The *side* field is required to be reported, but side adjustments are only allowed for same-side changes, including changes between Short Sale and Sell Long. Option Route Modified events must not be used to reflect a change in *senderIMID*, *destination*, or *destinationType*. These changes must be reflected as an Option Route Cancelled event followed by a new Option Order Route event.

The *routedOrderID* of the Option Order Route event being modified must be reflected in the Option Route Modified event. If the *routedOrderID* changed when the route was modified, the *routedOrderID* of the Option Order Route event being modified must be populated in the *priorRoutedOrderID* field. If the *routedOrderID* did not change when the route was modified, the *routedOrderID* of the Order Route event must be populated in the *routedOrderID* field, and the *dupROIDCond* field must be populated as true.

If a route modification is rejected by the destination venue, the Option Route Modified event must be reported with a *routeRejectedFlag* of true.

Table 65: Option Route Modified Event Field Specifications

	Option Route Modified (MOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		

	Option Route Modified (MOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MOMR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The orderKeyDate of the route which is being modified.	R		
7	orderID	Text (64)	The <i>orderID</i> of the route which is being modified or the <i>orderID</i> of the immediately preceding Order Modified event.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
10	eventTimestamp	Timestamp	The date/time of the route modification. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the route is modified manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the modification, known by the destination. Must equal the <i>senderIMID</i> on the Option Order Route event being modified.	С		
			When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination.			
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Option Order Accepted event.			
14	destination	Industry Member ID / Exchange ID	The <i>destination</i> of the route modification. Must equal the <i>destination</i> on the Option Order Route event being modified.	С		
			When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order.			
			Must equal the <i>receiverIMID</i> field on the Option Order Accepted event reported by the destination			

	Option Route Modified (MOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
			Industry Member.			
			When <i>destinationType</i> is 'E', this value is the Exchange ID of the destination exchange, and it must equal the <i>exchange</i> field on the Option Order Accepted event reported by the destination exchange.			
15	destinationType	Choice	Indicates whether the destination of the route modification is an Industry Member, an exchange or a foreign broker-dealer. Must equal the destinationType on the Option Order Route event being modified.	R		
16	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the modification to the destination. When dupROIDCond is 'false', must be unique per combination of Event Date, optionID, destination, senderIMID, and session (applicable only on routes to exchanges). Required when destinationType is 'F' or 'E' and manualFlag is 'false'.	С		
17	priorRoutedOrderID	Text (64)	The routedOrderID of the Option Order Route event being modified if the routedOrderID changed when the modification was routed to the destination. Must be populated when routedOrderID is populated and dupROIDCond is 'false'. Must be blank when dupROIDCond is 'true'	С		
18	session	Text (40)	The session ID used when routing the modification. Must be equal to the session on the Option Order Route event being modified Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.	С		
19	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell).	R		
20	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
21	quantity	Real Quantity	The order quantity.	R		
22	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С		
23	retiredFieldPosition		Field position is retired and must remain blank.			
24	orderType	Choice	The type of order being routed.	R		
25	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
26	tradingSession	Choice	The trading session(s) during which an order is	R		

	Option Route Modified (MOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
			eligible to trade.			
27	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate of the Industry Member.	R		
28	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
29	routeRejectedFlag	Boolean	Indicates the route modification was not accepted by the destination (rejected or no response) when marked 'true'.	R		
30	dupROIDCond	Boolean	Indicates when a modification to a route maintains the original <i>routedOrderID</i> .	R		
31	exchOriginCode	Text (4)	The code signifying the origin of the account as sent to the exchange. Required when <i>destinationType</i> is 'E'.	С		
32	openCloseIndicator	Choice	Indicates when exchange rules require an order to be marked as open or close upon entry into the exchange.	С		
33	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		
34	multiLegInd	Boolean	Indicates the route modification is related to a multileg order event. Refer to Section 5.2 for additional guidance.	R		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, optionID, session, routedOrderID

5.1.3.2. Option Route Cancelled Event

Industry Members must report an Option Route Cancelled event to CAT when a route has been fully or partially cancelled. Partial cancellations of a route may be reported to CAT using an Option Route Cancelled event or an Option Route Modified event. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

The *routedOrderID* of the Option Order Route event being cancelled must be reflected in the Option Route Cancelled event. If a route cancellation is rejected by the destination venue, the Option Route Cancelled event must be reported with a *routeRejectedFlag* of true.

Table 66: Option Route Cancelled Event Field Specifications

		Option	n Route Cancelled (MOCR)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	O
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOCR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the route which is being cancelled.	R
7	orderID	Text (64)	The <i>orderID</i> of the route which is being cancelled or the <i>orderID</i> of the immediately preceding Order Modified event.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С
10	eventTimestamp	Timestamp	The date/time of the route cancellation. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the route being cancelled was a manual route.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R
14	retiredFieldPosition		Field position is retired and must remain blank.	
15	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the cancellation, known by the destination. Must equal the <i>senderIMID</i> in the Option Order Route event	С

Option Route Cancelled (MOCR)							
Seq #	Field Name	Data Type	Description	Include Key			
			being cancelled. When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Option Order Accepted event.				
16	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the destination in the Option Order Route event being cancelled. Must equal the receiverIMID field on the Option Order Accepted event reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Option Order Accepted event reported by the destination exchange.	С			
17	destinationType	Choice	Indicates whether the destination of the original Option Order Route event was an Industry Member, an exchange or a foreign broker-dealer.	R			
18	routedOrderID	Text (64)	The ID assigned to the Option Order Route event being cancelled. This value must match the value for routedOrderID reported by the destination in their Option Order Accepted report. Required when destinationType is 'F' or 'E' and manualFlag is 'false'.	С			
19	session	Text (40)	The session ID used when routing the order. Must equal the <i>session</i> in the Option Order Route event being cancelled. Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.	С			
20	routeRejectedFlag	Boolean	Indicates the route cancellation was not accepted by the destination (rejected or no response) when marked 'true'.	R			
21	multiLegInd	Boolean	Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R			

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.3.3. Option Order Route Supplement Event

The Option Order Route Supplement event is a supplement to the Option Order Route event. Option Order Route Supplement events are considered as additions, not replacements or modifications. This

event accommodates reporting in scenarios where a route is rejected by the venue to which an order was routed, and the Industry Member chooses to report the *routeRejectedFlag* in this separate event.

An Option Order Route Supplement event may not be used to supplement an Option Order Route event where the *dupROIDCond* field is 'true'. These supplement events will be accepted by CAT, but credit will not be provided to any exchange linkage errors on the Option Order Route event where the *dupROIDCond* field is 'true'.

Table 67: Option Order Route Supplement Event Field Specifications

Option Order Route Supplement (MOORS)						
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOORS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Option Order Route event that is being supplemented.	R		
7	orderID	Text (64)	The <i>orderID</i> of the Option Order Route event that is being supplemented.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option bring routed. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time of the related Option Order Route event this event supplements (including scenarios in which the supplement is created at a later time).	R		
11	senderIMID	Industry Member ID	The senderIMID of the Option Order Route event that this event supplements. When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination.	С		

Option Order Route Supplement (MOORS)							
Seq #	Field Name	Data Type	Description	Include Key			
			When <i>destinationType</i> is 'E', this value must equal the <i>routingParty</i> reported by the exchange on the Participant Option Order Accepted event.				
12	destination	Industry Member ID / Exchange ID	The <i>destination</i> of the Option Order Route event that this event supplements.	С			
			When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and must equal the receiverIMID field on the Option Order Accepted event reported by the destination Industry Member.				
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and must equal the exchange field on the Option Order Accepted event reported by the destination exchange.				
13	destinationType	Choice	The destinationType of the Option Order Route event that this event supplements. Indicates whether the destination of the route is an Industry Member, or an exchange.	R			
14	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the order to the destination. Must match the <i>routedOrderID</i> of the Option Order Route event that this event supplements.	O			
			Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.				
15	session	Text (40)	The session of the Option Order Route event that this event supplements. Must only be populated when destinationType is 'E'. This	С			
			must only be populated when destination type is E. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.				
16	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R			
17	manualFlag	Boolean	The <i>manualFlag</i> of the related Option Order Route event this event supplements. Must be marked as 'true' if the order is routed manually.	R			

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, optionID, session, routedOrderID

5.1.3.4. Option Route Modified Supplement Event

The Option Route Modified Supplement event is a supplement to the Option Route Modified event. Option Route Modified Supplement events are considered as additions to an Option Route Modified event, not replacements or modifications. This event accommodates reporting in scenarios where a route modification is rejected by the venue to which the route modification was sent, and the Industry Member chooses to report the *routeRejectedFlag* in this separate Option Route Modified Supplement event.

An Option Route Modified Supplement event may not be used to supplement an Option Route Modified event where the *dupROIDCond* field is 'true'. These supplement events will be accepted by CAT, but credit will not be provided to any exchange linkage errors on the Option Route Modified event where the *dupROIDCond* field is 'true'.

Table 68: Option Route Modified Supplement Event Field Specifications

	Option Route Modified Supplement (MOMRS)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOMRS	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related Option Route Modified event this event is supplementing.	R	
7	orderID	Text (64)	The <i>orderID</i> of the related Option Route Modified event which this event is supplementing.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time of the related Option Route Modified event this event supplements (including scenarios in which the supplement is created at a later time).	R	
11	manualFlag	Boolean	The manualFlag of the related Option Route Modified event this event supplements. Must be marked as 'true' if the route modification was sent manually.	R	
12	senderIMID	Industry Member ID	The senderIMID of the Option Route Modified event that this event supplements. When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination.	С	

Option Route Modified Supplement (MOMRS)						
Seq #	Field Name	Data Type	Description	Include Key		
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Option Order Accepted event.			
13	destination	Industry Member ID /	The <i>destination</i> of the Option Route Modified event that this event supplements.	С		
		Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Option Order Accepted event reported by the destination Industry Member.			
			When <i>destinationType</i> is 'E', this value is the Exchange ID of the destination exchange, and it must equal the <i>exchange</i> field on the Option Order Accepted event reported by the destination exchange.			
14	destinationType	Choice	The destinationType of the Option Route Modified event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	R		
15	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when sending the option route modification to the destination. Must match the <i>routedOrderID</i> of the Option Route Modified event that this event supplements.	С		
			Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.			
16	session	Text (40)	The session of the Option Route Modified event that this event supplements.	С		
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.			
17	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R		
18	multiLegInd	Boolean	Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, optionID, session, routedOrderID

5.1.3.5. Option Route Cancelled Supplement Event

The Option Route Cancelled Supplement event is a supplement to the Option Route Cancelled event.

Option Route Cancelled Supplement events are considered as additions to an Option Route Cancelled event, not replacements or modifications. This event accommodates reporting in scenarios where a route

cancellation is rejected by the venue to which the route cancellation was sent, and the Industry Member chooses to report the *routeRejectedFlag* in this separate Option Route Cancellation Supplement event.

An Option Route Cancellation Supplement event may not be used to supplement an Option Route Cancelled event where the *dupROIDCond* field is 'true'. These supplement events will be accepted by CAT, but while Option Route Cancelled events are not subject to exchange linkage, Option Route Cancelled events where the *dupROIDCond* field is 'true' will not be considered supplemented.

Table 69: Option Route Cancelled Supplement Event Field Specifications

		Option Rou	ute Cancelled Supplement (MOCRS)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOCRS	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related Option Route Cancelled event this event is supplementing.	R
7	orderID	Text (64)	The <i>orderID</i> of the related Option Route Cancelled event which this event is supplementing.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time of the related Option Route Cancelled event this event supplements (including scenarios in which the supplement is created at a later time).	R
11	manualFlag	Boolean	The manualFlag of the related Option Route Cancelled event this event supplements. Must be marked as 'true' if the route cancellation was sent manually.	R

Option Route Cancelled Supplement (MOCRS)				
Seq #	Field Name	Data Type	Description	Include Key
12	senderIMID	Industry Member ID	The senderIMID of the Option Route Cancelled event that this event supplements. When destinationType is 'F', this value must equal the senderIMID on the Option Order Accepted event reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Option Order Accepted event.	С
13	destination	Industry Member ID / Exchange ID	The destination of the Option Route Cancelled event that this event supplements. When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Option Order Accepted event reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Option Order Accepted event reported by the destination exchange.	O
14	destinationType	Choice	The destinationType of the Option Route Cancelled event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	R
15	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when sending the route cancellation to the destination. Must match the <i>routedOrderID</i> of the Option Route Cancelled event that this event supplements. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.	С
16	session	Text (40)	The session of the Option Route Cancelled event that this event supplements. Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Option Order Accepted event by the receiving exchange.	С
17	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R
18	multiLegInd	Boolean	Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.4. Option Order Accepted Event

An Option Order Accepted event must be reported to CAT when an Industry Member receives an order from another CAT Reporter (i.e., Industry Member or exchange), or from another IMID belonging to the same Industry Member (i.e., the same CRD).

New customer orders, orders received from a non-broker-dealer affiliate, and orders received from a non-reporting foreign broker-dealer must be reported using a New Option Order event.

Table 70: Option Order Accepted Event Field Specifications

	Option Order Accepted (MOOA)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter</firm></event>	R	
4	4	Manager Time	IMID.	R	
5	type CATReporterIMID	Message Type CAT Reporter IMID	MOOA The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R	
7	orderID	Text (64)	The order ID assigned to the order by the Industry Member upon acceptance. Must be unique within same date, <i>CATReporterIMID</i> , and <i>optionID</i> combination.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	eventTimestamp	Timestamp	The date/time of receipt of the order. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
10	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С	
11	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Option Order Accepted event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order.	С	
12	manualFlag	Boolean	Must be marked as 'true' if the order is handled	R	

	Option Order Accepted (MOOA)					
Seq #	Field Name	Data Type	Description	Include Key		
			manually.			
13	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the order. When senderType is 'F', this value must equal the destination field on the Option Order Route event reported by the routing Industry Member. When senderType is 'E', this value must equal the routingParty on the Option Order Route event reported by the exchange.	R		
16	senderIMID	Industry Member ID / Exchange ID	When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the senderIMID in the Option Order Route event reported by the routing Industry Member. When senderType is 'E', this value is the Exchange ID of the sending Industry Member from which the order is routed, and must equal the exchange field in the Option Order Route event reported by the exchange.	R		
17	senderType	Choice	Indicates the type of origin from which the order is routed.	R		
18	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, <i>optionID</i> , <i>senderIMID</i> , and <i>receiverIMID</i> .	С		
10	d a n t T v n a	Chaine	Required when manualFlag is 'false'.	Б		
19	deptType	Choice	This is the category of internal department, unit or desk receiving the order.	R		
20	side	Choice	The side of the order.	R		
21	price	Price	The price per contract received on this order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
22	quantity	Real Quantity	The quantity of contracts on the accepted order.	R		
23	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if included on the order when received.	С		
24	orderType	Choice	The type of order received	R		
25	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
26	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
27	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		

	Option Order Accepted (MOOA)				
Seq #	Field Name	Data Type	Description	Include Key	
28	affiliateFlag	Boolean	Indicates if the routing party is an affiliate of the Industry Member.	R	
29	solicitationFlag	Boolean	Indicates if the order was received in response to an RFQ or other solicitation process.	R	
			This field is not used to indicate if a registered representative of the firm solicited a customer/client order.		
30	pairedOrderID	Text (64)	The pairedOrderID field may be populated if two or more offsetting orders are received with instructions to cross.	0	
31	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С	
32	retiredFieldPosition		Field position is retired and must remain blank.		
33	retiredFieldPosition		Field position is retired and must remain blank.		
34	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Route Linkage Key: Event Date, senderIMID, receiverIMID, optionID, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, optionID, manualOrderID

5.1.5. Option Order Internal Route Accepted

An Option Order Internal Route Accepted event must be reported when an order is passed internally to a different department or desk within a *CATReporterIMID*. Routes between different IMIDs attributed to the same Industry Member must be reported as Option Order Route and Option Order Accepted events.

An Option Order Internal Route Accepted event is required to be reported from the perspective of the recipient desk, and indicates that an order was received by an internal destination. In Phase 2d, Industry Members may choose to assign a new Order Key to an Option Order Internal Route Accepted event. If a new *orderID* is assigned, the *parentOrderID* must be populated with the *orderID* of the event that was internally routed, and the *parentOrderKeyDate* must be populated.

Industry Members may generate child orders using the Child Option Order event prior to routing internally to another desk. This approach is acceptable for CAT reporting and will not result in unlinked events.

5.1.5.1. Option Order Internal Route Accepted Event

Option Order Internal Route Accepted event is used to report an order sent internally to another desk.

Table 71: Option Order Internal Route Accepted Event Field Specifications

		Option Ord	ler Internal Route Accepted (MOIR)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOIR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination. When a new Order Key is not assigned, the orderID of	R
8	optionID	Text (22)	the order that was internally routed. The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	parentOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event from which the Order Internal Route Accepted event originated. Required when the parentOrderID is populated. Must be blank when parentOrderID is blank.	С
10	parentOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the event from which the Option Order Internal Route Accepted event originated. Must be unique within <i>orderKeyDate, CATReporterIMID</i> , and <i>symbol</i> combination.	С
			When populated, the <i>parentOrderID</i> must not be equal to the <i>orderID</i> within the record. Required when the <i>parentOrderKeyDate</i> is populated. If	

		Option Ord	er Internal Route Accepted (MOIR)	
Seq #	Field Name	Data Type	Description	Include Key
			a new Order ID has not been assigned, must be blank.	
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
12	eventTimestamp	Timestamp	The date/time of receipt by the receiving desk. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
13	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
15	deptType	Choice	The category of department, unit, or desk that is the destination of this internal route event.	R
16	receivingDeskType	Choice	Field indicates the type of desk receiving the internally routed order. More granular than the field <i>deptType</i> .	R
17	side	Choice	The side of the order.	R
18	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С
19	quantity	Real Quantity	The quantity of contracts on the order when internally routed.	R
20	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if included on the order when internally routed.	С
21	orderType	Choice	The type of order received from the routing desk or department.	R
22	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С
23	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С
24	retiredFieldPosition		Field position is retired and must remain blank.	
25	retiredFieldPosition		Field position is retired and must remain blank.	
26	timeInForce	Name/Value Pairs	The Time in Force for the order.	R
27	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
28	multiLegInd	Boolean	Indicates when the order that was routed internally is	R

	Option Order Internal Route Accepted (MOIR)				
Seq #	Field Name	Data Type	Description	Include Key	
			related to a multi-leg order event. Refer to <u>Section 5.2</u> for additional guidance.		
29	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	
30	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С	

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Parent Order Key: parentOrderKeyDate CATReporterIMID, optionID, and parentOrderID

5.1.5.2. Option Order Internal Route Modified Event

Industry Members must report an Option Order Internal Route Modified event to CAT when the Material Terms of the option internal route have been changed (e.g., price, quantity). All attributes and Material Terms of the modified option internal route listed on this event must be restated with the modification(s) reflected.

Industry Members may assign a new Order Key to Option Order Internal Route Modified events. If a unique *orderID* is assigned, the *priorOrderID* must be populated with the *orderID* of the Option Order Internal Route Accepted event that is being modified, and the *priorOrderKeyDate* must be populated.

Table 72: Option Order Internal Route Modified Event Field Specifications

	Option Order Internal Route Modified (MOIM)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter</firm></event>	R		

Pictor P		Option Order Internal Route Modified (MOIM)					
4 type Message Type MOIM R 5 CATReporterIMID CAT Reporter MID The SRO-assigned Identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename. O 6 orderKeyDate Timestamp When a new Order Key is assigned, the date and time the orderID was assigned. When a new Order Key is not assigned, the order that was internally routed. R 7 orderID Text (64) When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the orderID of the order that was internally routed. R 8 optionID Text (22) The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbol's section for more information. R 9 priorOrderKeyDate Timestamp If a new Order ID has been assigned, this is the orderID of the event being modified. C 10 priorOrderID Text (64) If a new Order ID has been assigned, this is the orderID of the event being modified. C 11 originatingIMID CAT Reporter IMID. An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolve		Field Name	Data Type	•			
Type CATReporterIMID CAT Reporter Rep				IMID.			
Reporter IMID OrderKeyDate Timestamp When a new Order Key is assigned, the date and time the orderID was assigned, the order Key is not assigned, the order Key is not assigned, the order for the order that was internally routed. Text (64) When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the order/ReyDate of the order that was internally routed. When a new Order key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the order/ID of the order that was internally routed. When a new Order key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the order/ID of the order that was internally routed. Must be unique within order/ReyDate, CATReporterIMID, and optionID combination. Text (22) Text (22) Text (23) Text (24) Text (25) Text (25) Text (26) Text (27) Text (28) Timestamp If a new Order ID has been assigned, this is the order/ID of the event being modified. Text (64) If a new Order ID has been assigned, this is the order/ID of the event being modified. Text (64) If a new Order ID has been assigned, this is the order/ID of the event being modified. Catronic IMID CAT Reporter IMID An Identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manual/lag is 'true', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Must be marked as 'true' if the internal route is modified manually. The time at which the event is systematized. Required when manualFlag is 'true' and the event is sys	4	type		MOIM	R		
the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the order that was internally routed. Text (64) When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the <i>orderID</i> off the order that was internally routed. Must be unique within <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. Text (22) The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol section for more information. The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol section for more information. The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol section for more information. The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol section for more information. Text (64) If a new Order ID has been assigned, this is the <i>orderID</i> of the event being modified. The answ Order ID has been assigned, this is the <i>orderID</i> of the event being modified. An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true' is true is firmestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Must be marked as 'true' if the internal route is systematized. Department of the cyclic is the proving the prov	5	CATReporterIMID	Reporter	uses to report to CAT. If populated, must equal the	0		
assigned to the order by the Industry Member. When a new Order Key is not assigned, the orderID of the order that was internally routed. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination. The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol section for more information. PriorOrderKeyDate Timestamp If a new Order ID has been assigned, this is the orderKeyDate of the event being modified. Text (64) If a new Order ID has been assigned, this is the orderID of the event being modified. Cat Reporter IMID An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to seconds. If manualFlag is 'false', timestamp with the event is systematized. Required when manualFlag is 'true' and the event is systematized. C deptType Choice The category of department, unit, or desk that received the internal route. More granular than the field deptType. Provided to the order. ReceivingDeskType Choice Indicates who initiated the internal route modification. Resided of the order.	6	orderKeyDate	Timestamp	the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the order that was	R		
Prior Prio	7	orderID	Text (64)	assigned to the order by the Industry Member. When a new Order Key is not assigned, the <i>orderID</i> of the order that was internally routed. Must be unique within <i>orderKeyDate</i> , <i>CATReporterIMID</i> ,	R		
OrderKeyDate of the event being modified.	8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option	R		
of the event being modified. 11 originatingIMID CAT Reporter IMID An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. 12 eventTimestamp Timestamp The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. 13 manualFlag Boolean Must be marked as 'true' if the internal route is modified manually. 14 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 15 deptType Choice The category of department, unit, or desk that received the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. More granular than the field deptType. 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	9	priorOrderKeyDate	Timestamp		С		
Reporter IMID where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. 12 eventTimestamp Timestamp The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. 13 manualFlag Boolean Must be marked as 'true' if the internal route is modified manually. 14 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 15 deptType Choice The category of department, unit, or desk that received the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. More granular than the field deptType. 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	10	priorOrderID	Text (64)		С		
time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. 13 manualFlag Boolean Must be marked as 'true' if the internal route is modified manually. 14 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 15 deptType Choice The category of department, unit, or desk that received the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. More granular than the field deptType. 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order.	11	originatingIMID	Reporter	where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different	С		
manually. 14 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 15 deptType Choice The category of department, unit, or desk that received the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. R 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	12	eventTimestamp	Timestamp	time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer	R		
when manualFlag is 'true' and the event is systematized. 15 deptType Choice The category of department, unit, or desk that received the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. More granular than the field deptType. 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	13	manualFlag	Boolean		R		
the internal route. 16 receivingDeskType Choice Indicates the type of desk that received the internal route. More granular than the field deptType. 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	14	electronicTimestamp	Timestamp		С		
route. More granular than the field <i>deptType</i> . 17 initiator Choice Indicates who initiated the internal route modification. R 18 side Choice The side of the order. R	15	deptType	Choice		R		
18 side Choice The side of the order. R	16	receivingDeskType	Choice		R		
	17	initiator	Choice	Indicates who initiated the internal route modification.	R		
19 price Price The limit price of the order. When provided, must be C	18	side	Choice	The side of the order.	R		
	19	price	Price	The limit price of the order. When provided, must be	С		

	Option Order Internal Route Modified (MOIM)					
Seq #	Field Name	Data Type	Description	Include Key		
			greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.			
20	quantity	Real Quantity	The order quantity.	R		
21	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С		
22	leavesQty	Real Quantity	The number of contracts of the order left open at the receiving desk after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R		
23	orderType	Choice	The type of order received from the routing desk or department.	R		
24	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
25	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С		
26	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
27	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
28	requestTimestamp	Timestamp	The date/time the internal route modification was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MOIMR event.	С		
			Must not be populated if the request is captured in a separate MOIMR event.			
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
29	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		
30	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С		
			Required when the order is routed partially and a new orderID is not assigned to this event.			
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.			
31	priorDeskOrderID	Text (64)	If a new deskOrderID has been assigned, this is the deskOrderID of the event being modified.	С		

	Option Order Internal Route Modified (MOIM)				
Seq #					
			When populated, the <i>priorDeskOrderID</i> must not be equal to the <i>deskOrderID</i> .		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, optionID, priorOrderID

5.1.5.3. Option Order Internal Route Cancelled Event

If an option internal route is cancelled, an Option Order Internal Route Cancelled event must be reported. Partial cancellations may be reported using an Option Order Internal Route Modified event or Option Order Internal Route Cancelled event with *leavesQty*.

Table 73: Option Order Internal Route Cancelled Event Field Specifications

	Option Order Internal Route Cancelled (MOIC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOIC	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The orderKeyDate of the internal route which is being cancelled.	R	
7	orderID	Text (64)	The <i>orderID</i> of the internal route which is being cancelled.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different	С	

Option Order Internal Route Cancelled (MOIC)				
Seq #	Field Name	Data Type	Description	Include Key
			CATReporterIMID.	
10	eventTimestamp	Timestamp	The date/time the internal route was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the order is cancelled manually.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R
14	leavesQty	Real Quantity	The number of contracts of the order left open at the receiving desk after the modification has occurred.	R
15	initiator	Choice	Indicates who initiated the internal route cancellation.	R
16	requestTimestamp	Timestamp	The date/time the internal route cancellation was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MOICR event.	С
			Must not be populated if the request is captured in a separate MOICR event.	
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	
17	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С
			Required when the order is routed partially and a new orderID is not assigned to this event.	
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.	

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.5.4. Option Order Internal Route Modification Request Event

Industry Members must report an Option Order Internal Route Modification Request event to CAT when a desk within the firm receives a request to modify the Material Terms of an internal route if the request is not captured in the *requestTimestamp* field of the Option Order Internal Route Modified event. All attributes and Material Terms of the modified internal route listed on this event must be restated with the requested modification(s) reflected.

Table 74: Option Order Internal Route Modification Request Event Field Specifications

Option Order Internal Route Modification Request (MOIMR) Seq Include Field Name **Data Type** Description Key actionType Choice Indicates whether the event is a new event, a firm R initiated correction or a repair of a CAT error. 2 errorROFID Unsigned Required when actionType is 'RPR'. Must be blank C when actionType is 'NEW'. 3 firmROFID Text (64) An identifier assigned to the record by the reporting firm. R Formatted as <Event Date> <firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. 4 Message **MOIMR** R type Type 5 CAT CATReporterIMID The SRO-assigned identifier that an Industry Member 0 uses to report to CAT. If populated, must equal the Reporter IMID CATReporterIMID in the filename. 6 The orderKeyDate of the order event for which the R orderKeyDate Timestamp internal route modification was requested. 7 orderID Text (64) The *orderID* of the order event for which the internal R route modification was requested. optionID The 21-character OSI Symbol of the option. For FLEX R 8 Text (22) Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. 9 originatingIMID CAT An identifier used in instances of a merger or acquisition Reporter where the originating firm had open limit orders on its IMID books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. The date/time the internal route modification request 10 eventTimestamp Timestamp R was received. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Boolean Must be marked as 'true' if the internal route modification R 11 manualFlag was requested manually. С 12 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 13 deptType Choice The category of department, unit, or desk that received R the internal route modification request. 14 receivingDeskType Choice Indicates the type of desk that received the internal route R modification request. More granular than the field deptType. The side of the order. 15 side Choice R 16 price Price The limit price of the order. When provided, must be С greater than or equal to zero.

	Option Order Internal Route Modification Request (MOIMR)				
Seq #	Field Name	Data Type	Description	Include Key	
			Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.		
17	quantity	Real Quantity	The order quantity.	R	
18	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable.	С	
19	retiredFieldPosition		Field position is retired and must remain blank.		
20	orderType	Choice	The type of order received from the routing desk or department.	R	
21	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
22	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
23	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
24	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	
25	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С	

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.5.5. Option Order Internal Route Cancel Request Event

Industry Members must report an Option Order Internal Route Cancel Request event to CAT when a desk within the firm receives a request to cancel an internal route if the request is not captured in the requestTimestamp field of the Option Order Internal Route Cancelled event.

Table 75: Option Order Internal Route Cancel Request Event Field Specifications

		Option Order I	nternal Route Cancel Request (MOICR)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOICR	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The orderKeyDate of the order event for which the cancellation was requested.	R
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the cancellation was requested.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time the internal route cancellation request was received. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the cancel request was received manually.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R
14	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С

Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.6. Child Option Order Event

The Child Option Order is used to represent instances when an order is sliced within the desk or department it is being worked, and is assigned a new order identifier. While all CAT reportable activity must be reported to CAT in applicable phases, Child Option Order events are not required to be utilized for CAT reporting. These event types are provided for the convenience of Industry Members to help model these types of order handling scenarios.

Child Option Order events are defined to include only the key data elements that may be changed when the event is created including fields to link to the parent order. The following rules apply with respect to Child Option Orders:

- Child Option Order events can only be used when an order is sliced and assigned new order IDs within the same desk. An Option Order Internal Route Accepted event must be reported when routed to another desk.
- A child order may be generated off of another child order without limitation.
- Child Option Orders must belong to the same FDID as the parent order.
- Child Option Orders must *not* be used to represent a multi-leg option order being "legged out".
 However, the Child Order event may be used in scenarios where an order is "legged out" and subsequently entered into another OMS/EMS or Algo within the same desk or department where a new *orderID* is assigned to each leg upon entry.

5.1.6.1. Child Option Order Event

Table 76: Child Option Order Event Field Specifications

Child Option Order (MOCO)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R

	Child Option Order (MOCO)					
Seq #	Field Name	Data Type	Description	Include Key		
4	type	Message Type	MOCO	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	The internal order ID assigned to the child order by the Industry Member. Must be unique with the orderKeyDate, CATReporterIMID, and optionID combination.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	parentOrderKeyDate	Timestamp	orderKeyDate of the event from which the Child Order originated.	R		
10	parentOrderID	Text (64)	The <i>orderID</i> of the event from which the Child Order originated. The <i>parentOrderID</i> must not be equal to the <i>orderID</i> within the record.	R		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
12	eventTimestamp	Timestamp	The date/time at which the child order was originated. Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	side	Choice	The side of the order.	R		
14	price	Price	The limit price of the order per contract. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when	С		
			orderType is 'MKT'.			
15	quantity	Real Quantity	The quantity of contracts of the Child order.	R		
16	minQty	Whole Quantity	The minimum quantity of contracts to be executed.	С		
17	orderType	Choice	The type of order being submitted (i.e., market, limit, or cabinet).	R		
18	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g., DAY, IOC, GTC).	R		
19	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
20	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
21	openCloseIndicator	Choice	Indicates when exchange rules require an order to be	R		

	Child Option Order (MOCO)			
Seq #	Field Name	Data Type	Description	Include Key
			marked as open or close upon entry into the exchange.	
22	retiredFieldPosition		Field position is retired and must remain blank.	
23	retiredFieldPosition		Field position is retired and must remain blank.	
24	multiLegInd	Boolean	Indicates when the Child Order was originated from a Multi-leg order. Refer to Section 5.2 for additional guidance.	R
25	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С
26	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0
27	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Parent Order Key: parentOrderKeyDate, CATReporterIMID, optionID, parentOrderID

5.1.6.2. Child Option Order Modified Event

Industry Members must report a Child Option Order Modified event to CAT when the Material Terms of the child order have been changed (e.g., price, quantity). All attributes and Material Terms of the modified child order listed on this event must be restated with the modification(s) reflected.

A Child Option Order Modified event is reported only in cases when a Child Option Order is modified. A Child Option Order Modified event must not be used when modifying an Option Order Internal Route Accepted event.

Industry Members may assign a new Order Key to Child Option Order Modified events. If a unique orderID is assigned, the priorOrderID must be populated with the orderID of the Child Option Order event that is being modified, and the priorOrderKeyDate must be populated.

Table 77: Child Option Order Modified Event Field Specifications

Child Option Order Modified (MOCOM)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	МОСОМ	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the Child Option Order event which is being modified.	R
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination. When a new Order Key is not assigned, the orderID of the Child Order being modified.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the Child Order being modified.	С
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the Child Order being modified. When populated, the <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record.	С
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
12	eventTimestamp	Timestamp	The date/time at which the child order was modified (e.g., the time that the child order was confirmed to be modified in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
13	side	Choice	The side of the order.	R

	Child Option Order Modified (MOCOM)				
Seq #	Field Name	Data Type	Description	Include Key	
14	price	Price	The limit price of the order per contract. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С	
15	quantity	Real Quantity	The quantity of contracts of the Child Order.	R	
16	minQty	Whole Quantity	The minimum quantity of contracts to be executed.	С	
17	leavesQty	Real Quantity	The number of contracts of the Child Order left open after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R	
18	orderType	Choice	The type of order being submitted.	R	
19	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
20	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
21	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
22	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С	
23	retiredFieldPosition		Field position is retired and must remain blank.		
24	retiredFieldPosition		Field position is retired and must remain blank.		
25	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	
26	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0	
27	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, optionID, priorOrderID

5.1.6.3. Child Option Order Cancelled Event

If a child option order is cancelled, a Child Option Order Cancelled event must be reported to CAT by the Industry Member.

A partial cancellation can be reported either with a Child Option Order Modified event or Child Option Order Cancelled event with *leavesQty*, depending on how it is handled by the Industry Member. If a cancel message was used, the Industry Member must report a Child Option Order Cancelled event to CAT. If a modify or cancel/replace message was used, a Child Option Order Modified event must be reported to CAT. This keeps the reported event in line with the action taken by the Industry Member.

Table 78: Child Option Order Cancelled Event Field Specifications

	Child Option Order Cancelled (MOCOC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOCOC	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Child Option Order event which is being cancelled.	R	
7	orderID	Text (64)	The <i>orderID</i> of the Child Option Order event which is being cancelled.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbol section for more information.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С	
10	eventTimestamp	Timestamp	The date/time at which the child order was cancelled (e.g., the time that the child order was confirmed to be cancelled in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to	R	

	Child Option Order Cancelled (MOCOC)				
Seq #	Field Name	Data Type	Description	Include Key	
			nanoseconds.		
11	side	Choice	The side of the order.	R	
12	cancelQty	Real Quantity	The quantity of the Child order being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R	
13	leavesQty	Real Quantity	The number of contracts of the Child Order left open after the cancellation. Full cancellation will result in a zero in the field.	R	
14	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.		
15	retiredFieldPosition		Field position is retired and must remain blank.		
16	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0	
17	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	

Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.7. Option Order Modified (Cancel/Replace) Event

Industry Members must report an Option Order Modified event to CAT when the Material Terms of an order have been changed (e.g., price, quantity), or when an order is cancel/replaced. All attributes and Material Terms of the modified order must be restated with the modification(s) reflected. If the order is a combined order, the aggregatedOrders field must be restated every time the order is modified or cancel/replaced. Changes to the orders being combined in the aggregatedOrders field are considered a modification to the order. The side field is required to be reported, but side adjustments are only allowed for same-side changes, including changes between Short Sale and Sell Long.

If a modification results in the generation of new order with a new Order Key which replaces the prior order, the *orderID* field must capture the identifier for the new order, and the prior order fields must reflect the order that is being replaced. If the order has been modified more than once with a new *orderID* assigned with each modification, the *priorOrderID* must refer to *orderID* of the immediately preceding modification which will not be the original Order ID. If the *orderID* remains the same during the modification, the *priorOrderID* must remain blank.

All attributes and Material Terms of the modified order listed on this event must be reported when applicable, including the fields that remain unchanged.

Industry Members are not required to report the modification request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a modification request was received that was too late to modify, and the order was not terminal (e.g., the order was "in-flight" and there was no confirmation time), the request must be reported as an Option Order Modification Request event.

Table 79: Option Order Modified (Cancel/Replace) Event Field Specifications

	Option Order Modified (Cancel/Replace) (MOOM)				
Seq#	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOOM	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the CAT event which is being modified.	R	
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination. When a new Order Key is not assigned, the orderID of the Option Order Modified (Cancel/Replace) event which is being modified.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being modified.	С	
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to	С	

	Option Order Modified (Cancel/Replace) (MOOM)					
Seq#	Field Name	Data Type	Description	Include Key		
			the orderID within the record.			
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
12	eventTimestamp	Timestamp	The date/time at which the order was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С		
14	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Option Order Modified (Cancel/Replace) event (electronicDupFlag is 'true'), this field is to capture the internal order ID of the manual order.	С		
15	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R		
16	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R		
17	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
18	receiverIMID	Industry Member ID	Required when the modification is received from an Industry Member or an exchange. The IMID of the Industry Member receiving the routed order modification.	O		
			When senderType is 'F', this value must equal the destination field on the Option Order Route event reported by the routing Industry Member.			
			When senderType is 'E', this value must equal the routingParty on the Participant Option Order Modified event reported by the exchange.			
19	senderIMID	Industry Member ID /	Required when the modification is received from an Industry Member or an exchange.	С		
		Exchange ID	When <i>senderType</i> is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the <i>senderIMID</i> in the Option Order Route event reported by the routing Industry Member.			
			When <i>senderType</i> is 'E', this value is the Exchange ID of the sending entity from which the order is routed, and must equal the <i>exchange</i> field in the Participant Option Order Modified event reported by the exchange.			

	Option Order Modified (Cancel/Replace) (MOOM)					
Seq#	Field Name	Data Type	Description	Include Key		
20	senderType	Choice	Required when the modification is received from an Industry Member or an exchange. Indicates the type of origin from which the order is routed.	С		
21	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, optionID, senderIMID, and receiverIMID. Required when senderType is 'F' or 'E' and manualFlag is 'false'.	С		
22	initiator	Choice	Indicates who initiated the order modification.	R		
23	side	Choice	The side of the order.	R		
24	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'.	С		
_			Must be blank when <i>orderType</i> is 'MKT'.			
25	quantity	Real Quantity	The order quantity.	R		
26	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if included on the order when originated.	С		
27	leavesQty	Real Quantity	The number of contracts of the order left open after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R		
28	orderType	Choice	The type of order being submitted.	R		
29	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
30	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
31	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
32	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С		
33	requestTimestamp	Timestamp	The date/time the modification was requested. Required if a request was received, and the request is not captured in a separate MOOMR event.	С		
			Must not be populated if the request is captured in a separate MOOMR event.			
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
			Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be required in future phases of CAT.			

	Option Order Modified (Cancel/Replace) (MOOM)					
Seq#	Field Name	Data Type	Description	Include Key		
34	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.			
35	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being combined.	С		
			Refer to Appendix C for combined order linkage requirements.			
For eac	ated Orders – Start ch order being combined <i>r</i>	<u> </u>	·			
35.n.1	orderID	Text (64)	orderID of the order being combined.	R		
35.n.2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R		
35.n.3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С		
35. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
Aggreg	ated Orders – End					
36	representativeInd	Choice	Indicates if the order is a combined order and if linkage is required.	R		
37	retiredFieldPosition		Field position is retired and must remain blank.			
38	retiredFieldPosition		Field position is retired and must remain blank.			
39	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, optionID, aggregatedOrders.orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, optionID, priorOrderID
- Route Linkage Key: Event Date, optionID, receiverIMID, senderIMID, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, optionID, manualOrderID

5.1.7.1. Option Order Modified Supplement Event

The Option Order Modified Supplement event serves as a supplement to the Option Order Modified event, just as the New Option Order Supplement event serves as a supplement to the New Option Order event.

Table 80: Option Order Modified Supplement Event Field Specifications

		Option Or	der Modified Supplement (MOOMS)	
Seq#	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOOMS	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	orderKeyDate	Timestamp	The orderKeyDate of the related Option Order Modified (Cancel/Replace) event which this event is supplementing.	R
7	orderID	Text (64)	The orderID of the related Option Order Modified (Cancel/Replace) event which this event is supplementing.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time of the Option Order Modified this event supplements.	R
11	aggregatedOrders	Aggregated Orders	The order ID of each customer/client order being combined. Refer to Appendix C for representative order linkage requirements.	R
•••	ated Orders – Start ch order being represe	ented <i>n</i> , the follo	requirements. owing values are required.	

	Option Order Modified Supplement (MOOMS)				
Seq#	Field Name	Data Type	Description	Include Key	
11.n.1	orderID	Text (64)	orderID of the order being combined.	R	
11.n.2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R	
11.n.3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С	
11.n.4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
Aggrega	ated Orders – End				

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, optionID, aggregatedOrders.orderID

5.1.7.2. Option Order Modification Request Event

The Option Order Modification Request event is required when a request is received to modify to the Material Terms of an order if the request is not captured in the *requestTimestamp* field of the Option Order Modification event. Industry Members are not required to report an Option Order Modification Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 81: Option Order Modification Request Event Field Specifications

	Option Order Modification Request (MOOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOOMR	R		
5	CATReporterIMID	CAT Reporter	The SRO-assigned identifier that an Industry Member	0		

	Option Order Modification Request (MOOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
		IMID	uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.			
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the option order event for which the modification was requested.	R		
7	orderID	Text (64)	The <i>orderID</i> of the option order event for which the modification was requested.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
10	eventTimestamp	Timestamp	The date/time of receipt of the modification request. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the modification was requested manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	receiverIMID	Industry Member ID	Required when the modification request is received from an Industry Member or an exchange. The IMID of the Industry Member receiving the routed order modification.	С		
14	senderIMID	Industry Member ID / Exchange ID	Required when the modification request is received from an Industry Member or an exchange. When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed. When senderType is 'E', this value is the Exchange ID of the sending entity from which the order is routed.	С		
15	senderType	Choice	Required when the modification request is received from an Industry Member or an exchange. Indicates the type of origin from which the order is routed.	С		
16	side	Choice	The side of the order.	R		
17	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	С		
18	quantity	Real Quantity	The order quantity.	R		
19	minQty	Whole	The minimum quantity of an order to be executed.	С		

	Option Order Modification Request (MOOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
		Quantity	Required if included on the order when originated.			
20	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g., DAY, IOC, GTC).	R		
21	orderType	Choice	The type of order being submitted.	R		
22	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
23	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
24	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require an order to be marked as open or close upon entry into the exchange.	С		
25	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When netPrice is populated, the price field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С		

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.8. Option Order Adjusted Event

The Option Order Adjusted event may be used instead of an Option Order Modified event to report changes to the price or quantity of an order. However, the Option Order Adjust events must not be used when changes to the price or quantity is initiated by a routing Industry Member.

The following rules apply:

- If the price changes, then *price* must be reported to represent current state of the order relative to price. The quantity fields are not required.
- If any of the quantity fields change, then all quantity fields (i.e., *quantity, minQty, leavesQty*) must be reported to represent the current state of the order relative to quantity. The price field is not required.

Any modification that cannot be fully represented in this Reportable Event must be reported via the Option Order Modified event. This includes modifications received from another Industry Member where a *routedOrderID* is required, and modifications to the *orderType*.

Industry Members may assign a new Order Key to Option Order Adjusted events. If a unique *orderID* is assigned, the *priorOrderID* must be populated with the *orderID* of the event that is being adjusted, and the *priorOrderKeyDate* must be populated. If the order has been adjusted several times, the *priorOrderID* must refer to order ID of the order that is being replaced. If the order ID remains the same during the adjustment, the *priorOrderID* must remain blank.

Table 82: Option Order Adjusted Event Field Specifications

Option Order Adjusted (MOOJ)					
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOOJ	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of order event which is being modified.	R	
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within orderKeyDate, CATReporterIMID, and optionID combination. When a new Order Key is not assigned, the orderID of order event which is being modified.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being adjusted.	С	
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the event being modified. When populated, the <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record.	С	
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different	С	

	Option Order Adjusted (MOOJ)					
Seq #	Field Name	Data Type	Description	Include Key		
			CATReporterIMID.			
12	eventTimestamp	Timestamp	The date/time at which the order was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	initiator	Choice	Indicates who initiated the order adjustment.	R		
16	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required if <i>price</i> changed.	С		
17	quantity	Real Quantity	The order quantity. Required if <i>quantity, minQty</i> or <i>leavesQty</i> changed.	С		
18	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required when applicable and when <i>quantity</i> , <i>minQty</i> , or <i>leavesQty</i> changed.	С		
19	leavesQty	Real Quantity	The number of contracts of the order left open after the adjustment/has occurred. Required when <i>quantity</i> , <i>minQty</i> or <i>leavesQty</i> changed. Must be less than or equal to <i>quantity</i> .	С		
20	retiredFieldPosition		Field position is retired and must remain blank.			
21	retiredFieldPosition		Field position is retired and must remain blank.			
22	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
23	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to <u>CAT FAQ B71</u> for additional information. Required if changed.	С		

- Order Key: orderKeyDate, CATReporterIMID, optionID, orderID
- Prior Order Key: orderKeyDate, CATReporterIMID, optionID, priorOrderID

5.1.9. Option Order Cancelled Event

The Option Order Cancelled event is reported when an order is fully or partially cancelled. Partial cancellations of an order may be reported to CAT using an Option Order Cancelled event or an Option

Order Modified event. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

Implicit order cancellations, such as cancellations due to expiration of Time in Force, are <u>not</u> required to be reported to CAT.

Option Order Cancelled events are required to be reported by the entity that initiated the cancellation. When an Order is routed from Firm A to Firm B, the following rules apply:

- If Firm A or its customer/client initiates the cancel, then Firm A and Firm B must report the Option Order Cancelled.
- If Firm B initiates the cancel, then Firm B must report the Option Order Cancelled.

Industry Members are not required to report the cancel request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a cancellation request was received that was too late to cancel, and the order was not terminal (e.g., the order was "in-flight" and there is no confirmation time), the request must be reported as an Option Order Cancel Request event.

Table 83: Option Order Cancelled Event Field Specifications

Option Order Cancelled (MOOC)						
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOOC	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Options order event which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the Options order event which is being cancelled.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended	R		

Option Order Cancelled (MOOC)						
Seq #	Field Name	Data Type	Description	Include Key		
			before the OSI symbol elements. See the Option Symbols section for more information.			
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time at which the order was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true'.	С		
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	leavesQty	Real Quantity	The number of contracts of the order left open after the cancel event. For full order cancellations, zero must be populated in this field.	R		
15	initiator	Choice	Indicates who initiated the order cancellation.	R		
16	retiredFieldPosition		Field position is retired and must remain blank.			
17	requestTimestamp	Timestamp	The date/time the cancellation was requested. Required if a request was received, and the request is not captured in a separate MOOCR event.	С		
			Must not be populated if the request is captured in a separate MOOCR event.			
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
			Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be required in future phases of CAT.			

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.9.1. Option Order Cancel Request Event

The Option Order Cancel Request event is required when a request is received to cancel an order if the request is not captured in the *requestTimestamp* field of the Option Order Cancelled event. Industry Members are not required to report an Option Order Cancel Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 84: Option Order Cancel Request Event Field Specifications

	Option Order Cancel Request (MOOCR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOOCR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Options order event for which the cancellation was requested.	R	
7	orderID	Text (64)	The <i>orderID</i> of the Options order event for which the cancellation was requested.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С	
10	eventTimestamp	Timestamp	The date/time of receipt of the cancel request. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or finer increment up to nanoseconds.	R	
11	manualFlag	Boolean	Must be marked as 'true' if the cancellation was requested manually.	R	
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required	С	

	Option Order Cancel Request (MOOCR)				
Seq #	Field Name	Data Type	Description	Include Key	
			when <i>manualFlag</i> is 'true'.		
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R	

• Order Key: orderKeyDate, CATReporterIMID, optionID, orderID

5.1.10. Option Quotes

Option Quote events are used to report electronic RFQ responses communicated in standard electronic format (e.g., FIX) that are not immediately actionable that need to be reported to CAT under the definition of an "order" under Rule 613(j)(8), provided by, or received in, a CAT Reporter's order/quote handling or execution system or Third Party RFQ Platform in CAT reportable option securities.

The following guidance applies to electronic quotes in Listed Options Securities and electronic RFQ responses communicated in standard electronic format (e.g., FIX) that are not immediately actionable that need to be reported to CAT, sent to a CAT Reporter's or Third Party Vendor RFQ platform:

- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, sent to an RFQ platform or a Third Party Vendor platform operated by an Industry Member must be reported using the New Option Quote and Option Routed Quote events.
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT,
 received by an Industry Member CAT Reporter operating an RFQ system using the Option Quote
 Received event.
- Electronic RFQ responses that meet the definition of bid or offer under the CAT NMS Plan sent by a broker-dealer to an RFQ Platform not operated by a CAT Reporter must be reported using the New Option Quote event.

Option Quote events are exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

5.1.10.1. New Option Quote Event

The New Option Quote Event is used to report the following:

- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, originated in listed option securities ultimately sent to RFQ system operated by an Industry Member
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, originated in listed option securities ultimately sent to a Third Party RFQ Platform not operated by a CAT Reporter.
- Any other electronic quotes which are provided by or received in a CAT Reporter's order/quote
 handling or execution systems in CAT reportable securities and are provided by an Industry
 Member to other market participants off a national securities exchange, as described in CAT
 FAQ B45.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. If the *bidRelativePrice* / *askRelativePrice* field is populated, the *bidPrice* and *askPrice* fields are not required to be populated.

If the field *onlyOneQuoteFlag* is populated as 'true', any New Option Quote event offered by the same CATReporterIMID to the same destination in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the *onlyOneQuoteFlag* method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the New Option Quote Event must not maintain the same quote ID as the quote that was cancelled.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 85: New Option Quote Event Field Specifications

	New Option Quote (MONQ)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter</firm></event>	R	
			IMID.		
4	type	Message Type	MONQ	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	eventTimestamp	Timestamp	The date/time the quote was originated by the Industry Member.	R	
10	onlyOneQuoteFlag	Boolean	Value is 'true' if the recipient only allows one quote to be active per <i>symbol</i> at a time for this Industry Member. Otherwise, false.	R	
11	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero. When bidRelativePrice is populated, the field is not required to be populated.	С	
12	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С	
13	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When askRelativePrice is populated, the field is not required to be populated.	С	
14	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С	

	New Option Quote (MONQ)					
Seq #	Field Name	Data Type	Description	Include Key		
15	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R		
16	accountHolderType	Choice	Represents the type of account that originated this quote.	R		
17	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R		
18	RFQFlag	Boolean	RFQ only field. Indicates if the CAT quote event reflects a response to an RFQ. Must be 'true' when <i>RFQID</i> field is populated.	R		
19	bidRelativePrice	Name/Value Pairs	Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available.	С		
20	askRelativePrice	Name/Value Pairs	Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available.	С		
21	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0		

• Option Quote Key: quoteKeyDate, CATReporterIMID, optionID, quoteID, RFQID

5.1.10.2. Option Routed Quote Event

The Routed Quote Event is used to report the following:

- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, in listed option securities sent to an RFQ platform or Third Party RFQ Platform operated by an Industry Member
- Electronic RFQ responses that are not immediately actionable that need to be reported to CAT, in listed option securities sent to a quotation venue not operated by a CAT Reporter.
- Any other electronic quotes which are provided by or received in a CAT Reporter's order/quote
 handling or execution systems in CAT reportable securities and are provided by an Industry
 Member to other market participants off a national securities exchange, as described in <u>CAT FAQ</u>
 <u>B45</u>.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. If the

bidRelativePrice / askRelativePrice field is populated, the bidPrice and askPrice fields are not required to be populated.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 86: Option Routed Quote Event Field Specifications

	Option Routed Quote (MORQ)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MORQ	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	eventTimestamp	Timestamp	The date/time the quote was sent by the Industry Member.	R	
10	senderIMID	Industry Member ID	The IMID of the Industry Member that is sending the quote, as known by the destination. This value must match the <i>senderIMID</i> on the Quote Received event reported by the destination.	R	
11	destination	Industry Member ID	When destinationType is 'F', this field contains the SRO-assigned identifier of the destination Industry Member. This value must match the receiverIMID field on the Quote Received event reported by the destination. Not required when destinationType is 'S' or 'N'.	С	

	Option Routed Quote (MORQ)					
Seq #	Field Name	Data Type	Description	Include Key		
12	routedQuoteID	Text (64)	The quote ID sent to the recipient of the quote. When dupROIDCond is 'false', must be unique per combination of Event Date, symbol, destination, and senderIMID.	R		
13	dupROIDCond	Boolean	Indicates when a Routed Quote event maintains the original <i>routedQuoteID</i> .	R		
14	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero. When bidRelativePrice is populated, the field is not required to be populated.	С		
15	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0' or the <i>bidRelativePrice</i> is populated.	С		
16	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When askRelativePrice is populated, the field is not required to be populated.	С		
17	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С		
18	quoteRejectedFlag	Boolean	If the result of the quote is rejected or no response was received, value should be 'true'.	R		
19	destinationType	Choice	Indicates whether the <i>destination</i> of the route is an Industry Member or a non-broker dealer.	R		
20	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R		
21	bidRelativePrice	Name/Value Pairs	Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available.	С		
22	askRelativePrice	Name/Value Pairs	Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available.	С		
23	validUntilDuration	Real Quantity	The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0		

- Option Quote Key: quoteKeyDate, CATReporterIMID, optionID, quoteID, RFQID
- Option Quote Route Key: Event Date, senderIMID, destination, optionID, routedQuoteID

5.1.10.3. Option Quote Received/Replace Event

The Option Quote Received event is used to report New Option Quotes or electronic RFQ responses that are not immediately actionable that need to be reported to CAT under the definition of an "order" under Rule 613(j)(8), in Listed Option securities received by an Industry Member operating an RFQ platform or a quotation venue not operated by a CAT Reporter, and also to update and replace an existing RFQ response on an RFQ platform.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated. If the *bidRelativePrice* / *askRelativePrice* field is populated, the *bidPrice* and *askPrice* fields are not required to be populated.

If the field onlyOneQuoteFlag is populated as 'true', any Option Quote Received event offered by the same CATReporterIMID from the same senderIMID in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the onlyOneQuoteFlag method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the Option Quote Received Event must not maintain the same quote ID as the quote that was cancelled. Modifications to a quote when the onlyOneQuoteFlag is populated as 'true' may alternatively be captured using the Quote Modified event.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 87: Option Quote Received Event Field Specifications

	Option Quote Received (MOQR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""></firm></event>	R	

	Option Quote Received (MOQR)					
Seq #	Field Name	Data Type	Description	Include Key		
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MOQR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R		
7	quoteID	Text (64)	The internal quote ID assigned to the quote by Industry Member. Must be unique within <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	receivedQuoteID	Text (64)	The quote ID as received by the Industry Member, must match the <i>routedQuoteID</i> in the Routed Quote event created by the issuer of the quote.	R		
10	dupROIDCond	Boolean	Indicates when a Quote Received event maintains the original routedQuoteID.	R		
11	eventTimestamp	Timestamp	The date/time the quote was received by the Industry Member.	R		
12	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the quote (the Industry Member reporting this Reportable Event). It must match the <i>destination</i> field on the Option Routed Quote event reported by the routing entity.	R		
13	senderIMID	Industry Member ID	The IMID of the Industry Member providing the quote. This value must match the senderIMID in the New Quote event reported by the routing Industry Member.	С		
			Not required when senderType is 'N or 'S'.	_		
14	onlyOneQuoteFlag	Boolean	'true' if the Industry Member only allows one quote to be active per <i>symbol</i> at a time for the issue of the quote; false otherwise.	R		
15	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero. When bid <i>RelativePrice</i> is populated, the field is not required to be populated.	С		
16	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the bidPrice field is populated with a value greater than '0' or the bidRelativePrice is populated.	С		
17	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When askRelativePrice is populated, the field is not required to be populated.	С		
18	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the	С		

	Option Quote Received (MOQR)				
Seq #	Field Name	Data Type	Description	Include Key	
			askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.		
19	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R	
20	RFQFlag	Boolean	Indicates if the CAT quote event reflects a response to an RFQ.	R	
			Must be 'true' when RFQID field is populated.		
21	bidRelativePrice	Name/Value Pairs	Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available.	С	
22	askRelativePrice	Name/Value Pairs	Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice,may not be available.	С	
23	senderType	Choice	Indicates the type of origin from which the quote is routed.	R	
24	validUntilDuration	Real Quantity	The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0	

- Option Quote Key: quoteKeyDate, CATReporterIMID, optionID, quoteID, RFQID
- Option Quote Route Key: Event Date, senderIMID, receiverIMID, optionID, receivedQuoteID

5.1.10.4. Option Quote Cancelled Event

Reported when an option quote is cancelled. If a RFQ Response (not immediately actionable) is cancelled that was sent by an Industry Member to an Industry Member operating an RFQ platform or a quotation venue not operated by a CAT Reporter, then the sender of the option quote must report Quote Cancelled events.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 88: Option Quote Cancelled Event Field Specifications

	Quote Cancelled (MOQC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOQC	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The <i>quoteKeyDate</i> of the Option Quote event which is being cancelled.	R	
7	quoteID	Text (64)	The <i>quoteID</i> of the Option Quote event which is being cancelled.	R	
8	optionID	Symbol	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time the Option Quote was cancelled.	R	
11	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R	

• Quote Key: quoteKeyDate, CATReporterIMID, optionID, quoteID, RFQID

5.1.10.5. Option Quote Modified Event

Industry Members may report a Quote Modified event instead of reporting a New Option Quote when a quote is updated.

If a modification to a quote result in the generation of a new *quoteID* with a new Quote Key which replaces the prior *quoteID*, the *quoteID* field must capture the newly assigned *quoteID* and the prior quote fields must reflect the quote that is being modified. If the quote has been modified more than once with a

new *quoteID* assigned with each modification, the *priorQuoteID* must refer to quote*ID* of the immediately preceding modification which will not be the original Quote ID. If the *quoteID* remains the same during the modification, the *priorQuoteID* must remain blank.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.

Table 89: Option Quote Modified Event Field Specifications

	Option Quote Modified (MOQM)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOQM	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination. When a new quote ID is not assigned, the quoteID of the Option Quote Modified (Cancel/Replace) event which is being modified.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	priorQuoteKeyDate	Timestamp	If a new Quote ID has been assigned, this is the quoteKeyDate of the event being modified.	С	
10	priorQuoteID	Text (64)	If a new Quote Key has been assigned, this is the <i>quoteID</i> of the event being modified. When populated, the <i>priorQuoteID</i> must not be equal to the <i>quoteID</i> within the record.	С	

Option Quote Modified (MOQM)				
Seq #	Field Name	Data Type	Description	Include Key
11	receiverIMID	Industry Member ID	Required when the modification is received from an Industry Member. The IMID of the Industry Member receiving the routed order modification.	С
12	senderIMID	Industry Member ID	Required when the modification is received from an Industry Member.	С
13	routedQuoteID	Text (64)	The ID for the quote as sent by the routing entity. Must be unique per combination of Event Date, optionID, senderIMID, and receiverIMID.	R
14	eventTimestamp	Timestamp	The date/time the quote was modified	R
15	bidPrice	Price	Price being bid. When provided, must be greater than or equal to zero. When bidRelativePrice is populated, must be blank.	С
16	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the bidPrice field is populated with a value greater than '0' or the bidRelativePrice is populated.	С
17	askPrice	Price	Price being asked. When provided, must be greater than or equal to zero. When askRelativePrice is populated, must be blank.	С
18	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' or the askRelativePrice is populated.	С
19	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R
20	bidRelativePrice	Name/Value Pairs	Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available.	С
21	askRelativePrice	Name/Value Pairs	Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific askPrice may not be available.	С
22	validUntilDuration	Real Quantity	The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0

- Quote Key: quoteKeyDate, CATReporterIMID, optionID, quoteID, RFQID
- Prior Quote Key: priorQuoteKeyDate, CATReporterIMID, optionID, priorQuoteID

5.1.11. Option Trade Event

An Option Trade event is used when a simple option order or the option leg of a multi-leg/complex order is manually executed on an options trading floor. The Option Trade event is one-sided. All parties to the trade (e.g., floor broker or market maker) are required to report an Option Trade event with the *sideDetailsInd* populated indicating which side of the trade the Industry Member was associated with, and which Trade Side Details will be populated in the Trade event.

The *cancelFlag* and *cancelTimestamp* fields must be captured in all instances where an option trade is cancelled, regardless if the cancellation was captured by the exchange.

Table 90: Option Trade Event Field Specifications

Option Trade (MOOT)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	моот	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	tradeKeyDate	Timestamp	The date and time the tradeID was assigned.	R
7	tradeID	Text (64)	Unique ID assigned to this execution by the Industry Member. This ID will be used in subsequent events when a specific trade needs to be identified. The combination of date, <i>CATReporterIMID</i> , <i>optionID</i> , and <i>tradeID</i> must be unique.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	eventTimestamp	Timestamp	The date/time at which the trade was executed. Timestamp must be reported to seconds.	R
10	manualFlag	Boolean	Must be marked as 'true'.	R
11	electronicTimestamp	Timestamp	The time at which the event is systematized.	0
12	cancelFlag	Boolean	Must be marked as 'true' if the execution is cancelled.	R
13	cancelTimestamp	Timestamp	When cancelFlag is 'true', the time at which the	С

Option Trade (MOOT)				
Seq #	Field Name	Data Type	Description	Include Key
			execution was cancelled. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	
14	quantity	Real Quantity	Quantity of the trade.	R
15	price	Price	The execution price of the trade. Must be greater than or equal to zero.	R
16	capacity	Choice	The capacity in which the Industry Member acted. Must be 'P' when firmDesignatedID field is populated.	R
17	tapeTradeID	Text (40)	The unique identifier assigned by the executing firm which links this event to the related exchange event.	R
18	sideDetailsInd	Choice	Identifies which side of the trade the Industry Member is populating in the Trade Side Details. When sideDetailsInd is 'BUY', only the buyDetails are populated. When sideDetailsInd is 'SELL', only the sellDetails are populated.	R
19	buyDetails	Trade Side Details	See <u>Table 91: Trade Side Details</u> below. Must be populated if <i>sideDetailsInd</i> is 'BUY'. Must be blank if <i>sideDetailsInd</i> is 'SELL'.	С
20	sellDetails	Trade Side Details	See <u>Table 91: Trade Side Details</u> below. Must be populated if <i>sideDetailsInd</i> is 'SELL'. Must be blank if <i>sideDetailsInd</i> is 'BUY'.	С
21	marketCenterID	Choice	The national securities exchange where the trade occurred.	R
22	multiLegInd	Boolean	Indicates when the order being executed is related to a multi-leg order event. Refer to Section 5.2 for additional guidance.	R
23	clearingFirm	Unsigned	The clearing number of the Industry Member's clearing firm.	R

Table 91: Trade Side Details

	Trade Side Details					
	The Trade Side Details associated with fields: <i>buyDetails</i> and <i>sellDetails</i> . Limited to 1 set of details for each side.					
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.1</seq>	orderKeyDate	Timestamp	The orderKeyDate of the order on this side. When orderID is populated, firmDesignatedID must be blank. When orderID is blank, firmDesignatedID must be populated.	С		

Trade Side Details

The Trade Side Details associated with fields: buyDetails and sellDetails. Limited to 1 set of details for each side.

Seq#	Field Name	Data Type	Description	Include Key
<seq>.1.2</seq>	orderID	Text (64)	The order ID of the order on this side.	С
<seq>.1.3</seq>	side	Choice	The side of the trade.	R
<seq>.1.4</seq>	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
<seq>.1.5</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	O
<seq>.1.6</seq>	firmDesignatedID	Text (40)	Required when a market maker was not required to report a New Option Order event in accordance with the November 12, 2020 Exemptive Order filed by the SEC ¹⁴ . Must be populated with the FDID of the market maker's account. The capacity must be 'P' when firmDesignatedID field is populated. When firmDesignatedID is populated, orderID must be blank. When orderID is populated, firmDesignatedID must be blank.	С
<seq>.1.7</seq>	accountHolderType	Choice	Required if <i>firmDesignatedID</i> is populated. Represents the type of account associated with the <i>firmDesignatedID</i> .	С

Linkage Keys for this Reportable Event:

- Order Key: buyDetails.orderKeyDate, CATReporterIMID, optionID, buyDetails.orderID
- Order Key: sellDetails.orderKeyDate, CATReporterIMID, optionID, sellDetails.orderID
- Trade Key: tradeKeyDate, CATReporterIMID, optionID, tradeID
- Exchange Trade Linkage Key: tradeKeyDate, optionID, tapeTradeID, marketCenterID, side

5.1.12. Option Order Fulfillment Event

An Option Order Fulfillment event must be reported when an Industry Member (subject to applicable SRO rules) combines individual simple option orders from customers/clients before routing to an exchange as a single simple order for execution and reflects the fill given to each individual order. Explicit linkage is

¹⁴ https://www.sec.gov/rules/exorders/2020/34-90405.pdf

required between the combined order and the original customer/client orders through the fulfillmentLinkType field.

5.1.12.1. Option Order Fulfillment Event

Table 92: Option Order Fulfillment Event Field Specifications

		Optio	on Order Fulfillment (MOOF)	
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R
4	type	Message Type	MOOF	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	fillKeyDate	Timestamp	The date and time the fulfillmentID was assigned.	R
7	fulfillmentID	Text (64)	A unique identifier for the fulfillment. For each Industry Member, the combination of fillKeyDate, optionID, and fulfillmentID must be unique.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	eventTimestamp	Timestamp	The date/time when the fulfillment was processed by the Industry Member. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or finer increment up to nanoseconds.	R
10	manualFlag	Boolean	Must be marked as 'true' if this is a manual process.	R
11	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
12	quantity	Real Quantity	Quantity being reported as fulfilled with this event. It may or may not be the full quantity of the order.	R
13	price	Price	Price at which the order contracts are being fulfilled. Must be greater than or equal to zero.	R
14	fulfillmentLinkType	Choice	Refer to Appendix C for combined order linkage requirements.	R
15	clientDetails	Fulfillment Side Details	Refer to Table 93: Options Fulfillment Side Details.	R

	Option Order Fulfillment (MOOF)				
Seq #	Field Name	Data Type	Description	Include Key	
16	firmDetails	Fulfillment Side Details	Refer to Table 93: Options Fulfillment Side Details.	С	
17	retiredFieldPosition		Field position is retired and must remain blank.		
18	cancelFlag	Boolean	Must be marked as 'true' if the fulfillment was cancelled.	R	
19	cancelTimestamp	Timestamp	When cancelFlag is 'true', the time at which the fulfillment was cancelled. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	С	

Table 93: Options Fulfillment Side Details

	Fulfillment Side Details					
	The Fulfillment Side Details associated with fields: <i>clientDetails</i> and <i>firmDetails</i> : Limited to 1 set of details for each side.					
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.1</seq>	orderKeyDate	Timestamp	The orderKeyDate of the order on this side.	R		
<seq>.1.2</seq>	orderID	Text (64)	The order ID assigned by the Industry Member to the order on this side.	R		
<seq>.1.3</seq>	side	Choice	The side of the fulfillment.	R		
<seq>.1.4</seq>	retiredFieldPosition		Field position is retired and must remain blank.			
<seq>.1.5</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, optionID, firmDetails.orderID
- Order Key: clientDetails.orderKeyDate, CATReporterIMID, optionID, clientDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, optionID, fulfillmentID

5.1.12.2. Option Order Fulfillment Supplement Event

Table 94: Option Order Fulfillment Supplement Event Field Specifications

	Option Order Fulfillment Supplement (MOOFS)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOOFS	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	fillKeyDate	Timestamp	The date and time the fulfillmentID was assigned.	R		
7	fulfillmentID	Text (64)	A unique identifier for the fulfillment. For each Industry Member, the combination of fillKeyDate, optionID, and fulfillmentID must be unique.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	eventTimestamp	Timestamp	The date/time when the fulfillment was processed by the Industry Member. This must match the eventTimestamp value reported on the Option Order Fulfillment this event supplements (including scenarios in which the supplement is created at a later time).	R		
10	firmDetails	Fulfillment Side Details	Refer to <u>Table 95: Options Fulfillment Side Details</u> . Refer to <u>Appendix C</u> for more details.	R		

Table 95: Options Fulfillment Side Details

	Fulfillment Side Details					
	The Fulfillment Side Details associated with fields: <i>clientDetails</i> and <i>firmDetails</i> : Limited to 1 set of details for each side.					
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.1</seq>	orderKeyDate	Timestamp	The orderKeyDate of the order on this side.	R		
<seq>.1.2</seq>	orderID	Text (64)	The order ID assigned by the Industry Member to the order on this side.	R		

	Fulfillment Side Details					
	nent Side Details a		fields: <i>clientDetails</i> and <i>firmDetails:</i>			
Seq#	Field Name	Data Type	Description	Include Key		
<seq>.1.3</seq>	side	Choice	The side of the fulfillment.	R		
<seq>.1.4</seq>	quantity	Real Quantity	The execution quantity associated with this <i>orderID</i> .	R		
<seq>.1.5</seq>	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, optionID, firmDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, optionID, fulfillmentID

5.1.12.3. Option Order Fulfillment Amendment Event

This CAT event is used to report the amendment of a previously reported fulfillment that occurs on the same day or on a subsequent day. An Option Order Fulfillment Amendment event is required to be reported to CAT if the fill to the customer/client was changed after the final fulfillment had been provided to the customer/client. This Reportable Event must capture the entire state of the fulfillment after it has been amended, even though some of the data elements may remain unchanged.

Option Order Fulfillment Amendments are not required in scenarios where:

- Executions against an order are tracked throughout the day but a single average price fill is provided to the customer/client after the order is completed or at the end of the day. Some systems may provide intraday transparency to the progress of executing an order as informal information that is not considered by the firm to be 'final' fulfillments, and these should not be reported to CAT as fulfillments and fulfillment amendments. Refer to CAT FAQ B64 for additional information.
- An Industry Member makes a correction via a debit/credit to the customer's/client's account instead of modifying the executed contracts given back to the customer/client.
- Changes do not impact CAT reportable attributes of the fulfillment.
- When an Industry Member fulfils an order and receives a trade break from the exchange, it is
 possible that the Industry Member may choose to take the delta (e.g., using an error account)
 without amending the manner by which the order was fulfilled.

Table 96: Option Order Fulfillment Amendment Event Field Specifications

	Option Order Fulfillment Amendment (MOFA)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MOFA	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	fillKeyDate	Timestamp	When a new Fulfillment Key is assigned, the date and time the <i>fulfillmentID</i> was assigned. When a new Fulfillment Key is not assigned, the <i>fillKeyDate</i> of the fulfillment event being modified.	R	
7	fulfillmentID	Text (64)	When a new Fulfillment Key is assigned, the internal fulfillment ID assigned to the order by the Industry Member. Must be unique within fillKeyDate, CATReporterIMID, and optionID combination. When a new Fulfillment Key is not assigned, the fulfillmentID of the fulfillment event being modified.	R	
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
9	priorFillKeyDate	Timestamp	In cases when a new fulfillmentID is assigned, the priorFillKeyDate is the fillKeyDate of the fulfillment that is being modified. Required if priorFulfillmentID is populated.	С	
10	priorFulfillmentID	Text (64)	If a new fulfillment ID is assigned, this is the fulfillmentID of the event being modified.	С	
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
12	eventTimestamp	Timestamp	The date/time that the fulfillment was amended. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or finer increment up to nanoseconds.	R	
13	manualFlag	Boolean	Must be marked as 'true' if this is a manual process.	R	

	Option Order Fulfillment Amendment (MOFA)				
Seq #	Field Name	Data Type	Description	Include Key	
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
15	fulfillmentLinkType	Choice	Refer to Appendix C for combined order linkage requirements.	R	
16	quantity	Real Quantity	Amended quantity being reported as fulfilled with this event. It may or may not be the full quantity of the order.	R	
17	price	Price	Amended price at which the order contracts are being fulfilled. Must be greater than or equal to zero.	R	
18	clientDetails	Fulfillment Side Details	Refer to <u>Table 93: Options Fulfillment Side Details</u> . Required if changed.	С	
19	firmDetails	Fulfillment Side Details	Refer to <u>Table 93: Options Fulfillment Side Details</u> . Required if changed.	С	
20	retiredFieldPosition		Field position is retired and must remain blank.		

- Order Key: firmDetails.orderKeyDate, CATReporterIMID, optionID, firmDetails.orderID
- Order Key: clientDetails.orderKeyDate, CATReporterIMID, optionID, clientDetails.orderID
- Fulfillment Key: fillKeyDate, CATReporterIMID, optionID, fulfillmentID
- Prior Fulfillment Key: priorFillKeyDate, CATReporterIMID, optionID, priorFulfillmentID

5.1.13. Option Post-Trade Allocations Event

Industry Members that perform allocations are required to submit a Post-Trade Allocation event to CAT any time contracts are allocated to a customer account regardless of whether the Industry Member was involved in executing the underlying order(s). Refer to <u>Section 3.3</u> for additional information on the requirements for reporting allocation events to CAT.

5.1.13.1. Option Post-Trade Allocation Event

Table 97: Option Post-Trade Allocation Event Field Specifications

Option Post-Trade Allocation (MOPA)				
Seq #	Field Name	Data Type	Description	Include Key
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R
2	errorROEID	Unsigned	Required when actionType is 'RPR'	С
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date=""> <firm identifier="" roe=""></firm></event>	R

	Option Post-Trade Allocation (MOPA)					
Seq #	Field Name	Data Type	Description	Include Key		
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MOPA	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT.	0		
6	allocationKeyDate	Timestamp	The date and time the allocationID was assigned.	R		
7	allocationID	Text (64)	The internal allocation ID assigned to the allocation event by the Industry Member. The combination of CATReporterIMID, allocationKeyDate, symbol and allocationID must be unique.	R		
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R		
9	eventTimestamp	Timestamp	The date/time the contracts allocated are booked into the customer's/client's account. Timestamp must be reported to seconds or a finer increment up to nanoseconds.	R		
10	cancelFlag	Boolean	Must be marked as 'true' if the allocation was cancelled.	R		
11	cancelTimestamp	Timestamp	When cancelFlag is 'true', the time at which the allocation was cancelled.	С		
12	quantity	Real Quantity	Quantity being allocated.	R		
13	price	Price	Price of the allocated contracts. Must be greater than or equal to zero.	R		
14	side	Choice	The side of customer/client receiving the allocation.	R		
15	firmDesignatedID	Text (40)	The FDID of the account receiving the allocation, including subaccounts. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R		
16	retiredFieldPosition		Field position is retired and must remain blank.			
17	institutionFlag	Boolean	Indicates if the account meets the definition of institution under FINRA Rule 4512(c).	R		
18	tradeDate	Date	The trade date of the securities being allocated. Used to validate the <i>optionID</i> field on this event.	R		
19	settlementDate	Date	The settlement date of the securities being allocated. Required when applicable.	С		
20	allocationType	Choice	Indicates the type of allocation being made (e.g., custody or CMTA).	R		
21	retiredFieldPosition		Field position is retired and must remain blank.			
22	correspondentCRD	Unsigned	The CRD number of the related Introducing Broker or Correspondent firm, if applicable.	С		
			·			

	Option Post-Trade Allocation (MOPA)				
Seq #	Field Name	Data Type	Description	Include Key	
23	newOrderFDID	Text (40)	The FDID of the related Option New Order event, if available in the booking system. Requirements for populating this field may be expanded in future phases of CAT.	С	
24	allocationInstructionTime	Timestamp	The date/time the time the allocation instruction was received.	0	
25	retiredFieldPosition		Field position is retired and must remain blank.		
26	occClearingMemberID	Text (40)	Represents the OCC Clearing Member ID for optionally reported CMTA transactions. Required when allocationType is 'CMTA'.	С	
27	accountHolderType	Choice	Represents the type of beneficial owner of the account to which the contracts were allocated.	R	

• Allocation Key: allocationKeyDate, CATReporterIMID, optionID, allocationID

5.1.13.2. Option Amended Allocation Event

An Option Amended Allocation event is used to report to CAT when an allocation is updated such that a CAT reportable attribute is changed after the shares/contracts were originally booked in a customer account, and must always reflect the current state of the allocation. This Reportable Event must capture the entire state of the allocation after it has been amended, even though some of the data elements may remain unchanged.

Changes to CAT reportable attributes of an allocation after the original booking of shares/contracts are required to be reported to CAT as either an Option Amended Allocation event or the cancellation of an Option Post-Trade Allocation event followed by a new Option Post-Trade Allocation event regardless if they occur pre-settlement or post-settlement.

Since changes to an allocation may occur any time after the original booking, the Amended Allocation event is due at 8AM on the next CAT Trading Day after the change was booked, even if it is on a different day than the original Allocation event. Refer to CAT FAQ U14 for additional information.

Option Amended Allocation events must not be reported to CAT in scenarios where:

- An Industry Member makes a correction via a debit/credit to the customer's account instead of modifying the allocation given to the customer.
- Changes do not impact CAT reportable attributes of the allocation.

Any changes to the FDID the shares/contracts were originally booked in a customer account may be reported as either an Amended Allocation event or the cancellation of a Post-Trade Allocation event followed by a new Post-Trade Allocation event regardless if they occur pre-settlement or post-settlement.

Option Amended Allocation events must not be used to correct ingestion errors on a previously submitted MOPA/MOAA event.

Table 98: Option Amended Allocation Event Field Specifications

	Option Amended Allocation (MOAA)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>		
4	type	Message Type	MOAA	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT.	0	
6	allocationKeyDate	Timestamp	When a new Allocation Key is assigned, the date and time the <i>allocationID</i> was assigned.	R	
			When a new Allocation Key is not assigned, the allocationKeyDate of the allocation event being modified.		
7	allocationID	Text (64)	When a new Allocation Key is assigned, the internal allocation ID assigned to the allocation event by the Industry Member. Must be unique within allocationKeyDate, CATReporterIMID, and optionID combination.	R	
			When a new Allocation Key is not assigned, the allocationID of the allocation event being modified.		
8	priorAllocationKeyDate	Timestamp	In cases when a new allocationID is assigned, the priorAllocationKeyDate is the allocationKeyDate of the allocation event that is being modified. Required if priorAllocationID is populated.	С	
9	priorAllocationID	Text (64)	If a new allocation ID is assigned, this is the allocationID of the event being modified.	С	
10	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R	
11	eventTimestamp	Timestamp	The date/time the time the allocation amendment	R	

	Option Amended Allocation (MOAA)					
Seq #	Field Name	Data Type	Description	Include Key		
			was processed. Timestamp must be reported to seconds or a finer increment up to nanoseconds.			
12	quantity	Real Quantity	Quantity being allocated.	R		
13	price	Price	Price of the allocated contracts. Must be greater than or equal to zero.	R		
14	side	Choice	The side of customer/client receiving the allocation.	R		
15	firmDesignatedID	Text (40)	The FDID of the account receiving the allocation, including subaccounts. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R		
16	retiredFieldPosition		Field position is retired and must remain blank.			
17	institutionFlag	Boolean	Indicates if the account meets the definition of institution under FINRA Rule 4512(c).	R		
18	tradeDate	Date	The trade date of the securities being allocated. Used to validate the <i>optionID</i> field on this event.	R		
19	settlementDate	Date	The settlement date of the securities being allocated. Required when applicable.	С		
20	allocationType	Choice	Indicates the type of allocation being made (e.g., custody or CMTA).	R		
21	retiredFieldPosition		Field position is retired and must remain blank.			
22	correspondentCRD	Unsigned	The CRD number of the related Introducing Broker or Correspondent firm, if applicable.	С		
23	newOrderFDID	Text (40)	The FDID of the related New Option Order event, if available in the booking system. Requirements for populating this field may be expanded in future phases of CAT.	С		
24	allocationInstructionTime	Timestamp	The date/time the time the allocation amendment instruction was received.	0		
25	cancelFlag	Boolean	Must be marked as 'true' if the allocation was cancelled.	R		
26	cancelTimestamp	Timestamp	When <i>cancelFlag</i> is 'true', the time at which the allocation was cancelled.	С		
27	retiredFieldPosition		Field position is retired and must remain blank.			
28	occClearingMemberID	Text (40)	Represents the OCC Clearing Member ID for optionally reported CMTA transactions. Required when allocationType is 'CMTA'.	С		
29	accountHolderType	Choice	Represents the type of beneficial owner of the account to which the contracts were allocated.	R		

- Allocation Key: allocationKeyDate, CATReporterIMID, optionID, allocationID
- Prior Allocation Key: priorAllocationKeyDate, CATReporterIMID, optionID, priorAllocationID

5.1.14. Option Order Effective Event

The Option Order Effective event is used to indicate that an order, or an underlying condition of an order, has become effective. This event is applicable to orders such as conditional (Refer to <u>FAQ D26</u>), Stop, Stop Limit, Trailing Stop, Trailing Stop Limit, Stop on Quote, and Stop Limit on Quote orders. This event is NOT applicable to Stop Stock transactions. The Option Order Effective event must be reported by the party that was holding the order at the time the order or condition became effective.

If the triggering event causing the order to become effective was a specific price, such as a stop price, the *triggerPrice* field must be populated in scenarios where the trigger price was not explicitly captured in the *handlingInstructions* field on the related new order (e.g., Stop Formula, Trailing Stop). In scenarios where the stop price was captured in prior CAT events associated with the order (e.g., as a Name/Value pair in *handlingInstructions* on MONO and/or MOOA events), then the information may be optionally restated in the *triggerPrice* field on the Option Order Effective event; however, it is not required to be reported again.

If a new order ID is generated when the order becomes effective, which replaces the prior order ID, the *orderID* field must capture the new order ID, and the *priorOrderID* field must reflect the order ID that is being replaced. If the *orderID* remains the same when the order becomes effective, the *priorOrderID* and *priorOrderKeyDate* must remain blank.

Table 99: Option Order Effective Event Field Specifications

	Option Order Effective (MOOE)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MOOE	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the CAT event which is being modified.	R		

		Optio	n Order Effective (MOOE)	
Seq #	Field Name	Data Type	Description	Include Key
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the <i>orderID</i> of the Option Order Modified (Cancel/Replace) event which is being modified. Must be unique within <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination.	R
8	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	R
9	priorOrderKeyDate	Timestamp	If a new Order Key has been assigned, this is the orderKeyDate of the event being modified.	С
10	priorOrderID	Text (64)	If a new Order Key has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	O
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
12	eventTimestamp	Timestamp	The date/time the order or underlying condition became effective.	R
13	timeInForce	Name/Value Pairs	The Time in Force for the order (e.g., DAY, IOC, GTC).	R
14	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
15	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
16	side	Choice	The side of the order. For this Reportable Event, only same-side adjustments are allowed (e.g., sell long to short sell). Required if the field changed when the order or underlying condition became effective.	O
17	price	Price	The limit price of the order. When provided, must be greater than or equal to zero. Required if the field changed when the order became effective.	O
18	quantity	Real Quantity	The order quantity. Required if the field changed when the order or underlying condition became effective.	С
19	minQty	Whole Quantity	The minimum quantity of an order to be executed. Required if the field changed when the order or underlying condition became effective.	С
20	orderType	Choice	The type of order being submitted (e.g., market, limit). Required if the field changed when the order became effective.	R

	Option Order Effective (MOOE)				
Seq #	Field Name	Data Type	Description	Include Key	
21	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required if the field changed when the order became effective.	С	
22	triggerPrice	Price	The price at which the order became effective. Required in scenarios where the trigger price was not explicitly captured in the <i>handlingInstructions</i> field on the related new order (e.g., Stop Formula, Trailing Stop)	С	
23	netPrice	Price	The net price of the order when tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. When <i>netPrice</i> is populated, the <i>price</i> field must be blank or populated with a value of zero. Refer to CAT FAQ B71 for additional information.	С	

- Order Key: orderKeyDate, CATReporterIMID, symbol, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, optionID, priorOrderID

5.2. Multi-Leg/Complex Option Order Events

The following multi-leg/complex orders must be reported to CAT:

- A multi-leg order that meets the definition of an exchange-defined complex order and is routed to an options exchange as a complex order. The definition of complex order in this context is not dependent on any NMS or options linkage plan trade through exemption provision embedded within an exchange's definition of a complex order.
- A multi-leg order involving at least one option leg received by a broker-dealer as a single
 instruction where all legs of the order are linked and such linkage affects the price of any
 individual leg of the order. A typical example of this type of order would be a Buy/Write.

The following are examples of orders that would <u>not</u> be reported to CAT as a multi-leg order:

- Baskets
- Complex/multi-leg orders that do not involve an option

Multi-Leg Option Order events include both strategy level details, and leg level details that are represented as a multi-dimensional array. The number of CAT reportable legs must be identified in the *numberOfLegs* field. If a strategy involves legs that are not CAT reportable, such as futures or fixed income, the relevant *handlingInstructions* value must be populated.

There is no limit to the number of *legDetails* that may be included in a multi-leg order event, however, the number of legs able to be represented in each record is constrained by record size limits. If a Multi-Leg Order event has more legs than can be represented in an order event, additional legs must be represented in a Multi-Leg Order Supplement event.

There are no multi-leg trade, fulfillment, or allocation events. Trades, fulfillments, and allocations of a multi-leg order occur at the leg level, and must be reported to CAT as equity or simple option Trade, Order Fulfillment, or Allocation events.

Route of a Multi-Leg Option Order as Individual Legs

In scenarios where the Multi-Leg order is "legged-out" and routed as individual legs, the route of each leg must be reported as a simple Order Route or Option Order Route event with the *multiLegInd* populated. This guidance applies in scenarios where:

- A Multi-Leg order is received/originated and routed directly to the destination venue as a simple
 Order Route or Option Order Route event. In this scenario, the *multiLegInd* must be populated as
 'true' on each Order Route or Option Order Route event.
- A Multi-Leg order is received/originated and routed internally as individual legs before being
 routed to the destination venue by the receiving desk or department. ¹⁵ In this scenario, the
 multiLegInd must be populated as 'true' on each Order Internal Route Accepted or Option Order
 Internal Route Accepted event. The multiLegInd must be 'false' on subsequent Order Route or
 Option Order Route events.
- A Multi-Leg order is received/originated and is entered into a separate OMS/EMS or Algo as individual legs where a new *orderID* is generated, and the Industry Member chooses to report simple Child Order or Child Option Order events. While Child Order events must not be used to represent the order being "legged out", in this case a new *orderID* is assigned to each individual leg when entered into the OMS/EMS or Algo. In this scenario, the *multiLegInd* must be populated as 'true' on each Child Order or Child Option Order event. The *multiLegInd* must be 'false' on subsequent Order Route or Option Order Route events.

5.2.1. Multi-Leg New Order Event

Multi-Leg New Order events are used to report the receipt or origination of a Multi-Leg order event.

¹⁵ Refer to <u>CAT FAQ E1</u> for additional information.

Combined Orders

Industry Members are required to populate a *representativeInd* value of "OML" in scenarios where the Industry Member, subject to applicable SRO rules, combines individual Multi-Leg Option orders from customers/clients with the same strategy before routing to an exchange as a single Multi-Leg order for execution. Explicit linkage is required between the combined Multi-Leg order and the original customer/client orders through the *aggregatedOrders* field.

Industry Members are required to populate a *representativeInd* value of "OMS" when the number of combined orders included in the *aggregatedOrders* field causes the Multi-Leg New Order event to exceed the maximum allowed message length, or when the orders being represented are not captured in the Multi-Leg New Order Event.

Multi-Leg orders may only be combined if they contain the same strategy. Multi-Leg orders with different strategies that are handled simultaneously are considered a basket for CAT reporting purposes and must not be represented as one combined Multi-Leg New Order event.

Fills of a Multi-Leg order occur at the leg level and must be reported to CAT as simple Order Fulfillment or Options Order Fulfillment events with a *fulfillmentLinkType* value of "OML" to indicate that the *orderID* referenced in the *firmDetails* is a Multi-Leg New Order event.

Individual Legs Represented as FIX Messages

In scenarios where a multi-leg order is received as individual FIX messages for each leg with instructions to treat as a complex order, or in scenarios where a multi-leg order is received manually and is followed by individual FIX messages for each leg, the receipt of the individual FIX messages are not required to be reported to CAT. The industry Member is only required to report the receipt of the Multi-Leg order.

If the Industry Member is unable to suppress the reporting of these FIX messages, they must be reported as simple New Order or Order Accepted events with a *handlingInstructions* value of 'CMPX'. Events with a *handlingInstructions* value of 'CMPX' will not be linked to the Multi-Leg New Order event.

Table 100: Multi-Leg New Order Event Specifications

	Multi-Leg New Order (MLNO)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		

	Multi-Leg New Order (MLNO)				
Seq#	Field Name	Data Type	Description	Include Key	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""></firm></event>	R	
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MLNO	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R	
7	orderID	Text (64)	The internal order ID assigned to the order by the Industry Member. Must be unique within same date, CATReporterIMID, and optionID combination.	R	
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0	
9	eventTimestamp	Timestamp	The date/time of receipt of the order. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
10	manualFlag	Boolean	Must be marked as 'true' if the order was received manually.	R	
11	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С	
12	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Multi-Leg New Order event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order.	С	
13	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R	
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
15	deptType	Choice	This is the category of internal department, unit or desk originating the order.	R	
16	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero.	С	
			This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number.		
			Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'		

	Multi-Leg New Order (MLNO)				
Seq#	Field Name	Data Type	Description	Include Key	
17	quantity	Real Quantity	The number of units of the multi-leg order.	R	
18	minQty	Whole Quantity	The minimum quantity of units to be executed.	С	
19	orderType	Choice	The type of order being submitted.	R	
20	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
21	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
22	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
23	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R	
24	accountHolderType	Choice	Represents the type of beneficial owner of the account for which the order was received or originated.	R	
25	affiliateFlag	Boolean	Indicates if the routing party is an affiliate of the Industry Member.	R	
26	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being combined. Refer to Appendix C for representative order linkage requirements.	С	
	ated Orders – Start ch order being combined	n, the following n			
26. <i>n</i> .1	orderID	Text (64)	orderID of the order being combined.	R	
26.n.2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R	
26.n.3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С	
26. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С	
Aggreg	ated Orders – End				
27	representativeInd	Choice	Indicates if the order is a combined order.	R	
28	solicitationFlag	Boolean	Indicates if the order was originated in response to an RFQ or other solicitation process.	R	
			This field is not used to indicate if a registered representative of the firm solicited a customer/client order.		
29	RFQID	Text (64)	For New Order events representing a response to an RFQ or solicitation, the ID assigned to the related RFQ or solicitation being responded to. Must be	С	

Multi-Leg New Order (MLNO)				
Seq#	Field Name	Data Type	Description	Include Key
			populated when available.	
30	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R
31	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С
32	legDetails	Leg Details	See Table 101: Leg Details below.	R

Table 101: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
32. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
32.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	C
32.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	С
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
32.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange.	O
22 n E	aida	Chains	Must be blank if symbol is populated.	R
32. <i>n</i> .5	side	Choice	The side of the leg.	
32. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, aggregatedOrders.orderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, manualOrderID

5.2.2. Multi-Leg Order Route Event

Multi-Leg Order Route events are used to report the route of a Multi-Leg order at the strategy level. Leg level details are required to be restated on the Multi-Leg Order Route event.

Handling Instructions on Multi-Leg Order Route Events

Handling Instructions are required to be reported on the Multi-Leg Order Route event. The handling instructions included in this event must represent the handling instructions sent by the routing firm to the receiving destination. If the handling instructions do not change when the order is routed externally from the handling instructions received by the Industry Member and reported on the Multi-Leg Order Accepted or Multi-Leg New Order associated with the order, Industry Members may use the *handlingInstructions* value 'RAR' (Routed as Received) instead of repeating each individual handling instruction.

Table 102: Multi-Leg Order Route Event Specifications

Multi-Leg Order Route (MLOR)							
Seq #	Field Name	Data Type	Description	Include Key			
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R			
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С			
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R			
4	type	Message Type	MLOR	R			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0			
6	orderKeyDate	Timestamp	The orderKeyDate of the event which is being routed.	R			
7	orderID	Text (64)	The orderID of the order event which is being routed.	R			
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0			
9	eventTimestamp	Timestamp	The date/time of the Multi-Leg Order Route. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R			
10	manualFlag	Boolean	Must be marked as 'true' if the order was routed manually.	R			
11	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic	R			

	Multi-Leg Order Route (MLOR)								
Seq #	Field Name	Data Type	Description	Include Key					
			message of a manual event.						
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С					
13	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the order, known by the destination. When destinationType is 'F', this value must equal the senderIMID on the Multi-Leg Order Accepted event reported by the destination.	С					
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Complex Option Order Accepted event.						
14	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Complex Option Order Accepted event reported by the destination exchange.	С					
15	destinationType	Choice	Indicates whether the destination of the route is an Industry Member or an exchange.	R					
16	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the order to the destination. This value must match the value for <i>routedOrderID</i> reported by the destination in their Order Accepted report.	С					
			Must be unique per combination of Event Date, destination, senderIMID, and session (applicable only on routes to exchanges).						
			Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'.						
17	session	Text (40)	The session ID used when routing the order. Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Complex Option Order Accepted event by the receiving exchange.	С					
18	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank	С					
			when orderType is 'MKT'						
19	quantity	Real Quantity	The number of units of the multi-leg order.	R					
20	minQty	Whole Quantity	The minimum quantity of units to be executed.	С					

	Multi-Leg Order Route (MLOR)						
Seq #	Field Name	Data Type	Description	Include Key			
21	orderType	Choice	The type of order being routed.	R			
22	timeInForce	Name/Value Pairs	The Time in Force for the order.	R			
23	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R			
24	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С			
25	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate	R			
26	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R			
27	exchOriginCode	Text (4)	The code signifying the origin of the account as sent to the exchange. Required when <i>destinationType</i> is 'E'.	С			
28	pairedOrderID	Text (64)	If the order was routed as a pair, the internal identifier assigned to all orders included in the paired route.	С			
29	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R			
30	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С			
31	legDetails	Leg Details	See <u>Table 103: Leg</u> Details below.	R			

Table 103: Leg Details

Leg Details

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
31. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
31. <i>n</i> .2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if optionID is populated.	С
31. <i>n</i> .3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented	С

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
			is an option leg. Must be blank if symbol is populated.	
31.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
31. <i>n</i> .5	side	Choice	The side of the leg.	R
31. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, session, routedOrderID

5.2.2.1. Multi-Leg Route Modified Event

Industry Members must report a Multi-Leg Route Modified event to CAT when the Material Terms of a route have been changed (e.g., price, quantity), or when a multi-leg route is cancel/replaced.

All attributes and Material Terms of the route listed on this event must be restated with the modification(s) reflected. The *side* field is required to be reported, but side adjustments are only allowed for same-side changes, including changes between Short Sale and Sell Long. Multi-Leg Route Modified events must not be used to reflect a change in *senderIMID*, *destination*, or *destinationType*. These changes must be reflected as a Multi-Leg Route Cancelled event followed by a new Multi-Leg Order Route event.

The *routedOrderID* of the Multi-Leg Order Route event being modified must be reflected in the Multi-Leg Route Modified event. If the *routedOrderID* changed when the route was modified, the *routedOrderID* of the Multi-Leg Order Route event being modified must be populated in the *priorRoutedOrderID* field. If the *routedOrderID* did not change when the route was modified, the *routedOrderID* of the Multi-Leg Order Route event must be populated in the *routedOrderID* field, and the *dupROIDCond* field must be populated as true.

If a route modification is rejected by the destination venue, the Multi-Leg Route Modified event must be reported with a *routeRejectedFlag* of true.

Table 104: Multi-Leg Route Modified Event Field Specifications

	Multi-Leg Route Modified (MLMR)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MLMR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	orderKeyDate	Timestamp	The orderKeyDate of the route which is being modified.	R	
7	orderID	Text (64)	The <i>orderID</i> of the route which is being modified or the <i>orderID</i> of the immediately preceding Order Modified event.	R	
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time of the route modification. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
11	manualFlag	Boolean	Must be marked as 'true' if the route is modified manually.	R	
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	
13	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the modification, known by the destination. Must equal the <i>senderIMID</i> on the Order Route event being modified.	С	
			When destinationType is 'F', this value must equal		

		Multi-Leç	g Route Modified (MLMR)	
Seq #	Field Name	Data Type	Description	Include Key
			the senderIMID on the Order Accepted event reported by the destination. When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event.	
14	destination	Industry Member ID / Exchange ID	The destination of the route modification. Must equal the destination on the Order Route event being modified. When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order. Must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member. When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order	С
15	destinationType	Choice	Accepted event reported by the destination exchange. Indicates whether the destination of the route modification is an Industry Member, an exchange or a foreign broker-dealer. Must equal the destinationType on the Order Route event being modified.	R
16	routedOrderID	Text (64)	The ID assigned to the order by the Industry Member when routing the modification to the destination. When dupROIDCond is 'false', must be unique per combination of Event Date, destination, senderIMID, and session (applicable only on routes to exchanges). Required when destinationType is 'F' or 'E' and manualFlag is 'false'.	С
17	priorRoutedOrderID	Text (64)	The routedOrderID of the Order Route event being modified if the routedOrderID changed when the modification was routed to the destination. Must be populated when routedOrderID is populated and dupROIDCond is 'false'. Must be blank when dupROIDCond is 'true'	С
18	session	Text (40)	The session ID used when routing the modification. Must be equal to the session on the Order Route event being modified Must only be populated when destinationType is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.	С
19	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
20	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero.	С

	Multi-Leg Route Modified (MLMR)					
Seq #	Field Name	Data Type	Description	Include Key		
			This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'			
21	quantity	Real Quantity	The number of units of the multi-leg order.	R		
22	minQty	Whole Quantity	The minimum quantity of units to be executed.	С		
23	retiredFieldPosition		Field position is retired and must remain blank.			
24	orderType	Choice	The type of order being routed.	R		
25	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
26	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
27	affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate of the Industry Member.	R		
28	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
29	routeRejectedFlag	Boolean	Indicates the route modification was not accepted by the destination (rejected or no response) when marked 'true'.	R		
30	dupROIDCond	Boolean	Indicates when a modification to a route maintains the original <i>routedOrderID</i> .	R		
31	exchOriginCode	Text (4)	The code signifying the origin of the account as sent to the exchange. Required when <i>destinationType</i> is 'E'.	С		
32	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R		
33	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
34	legDetails	Leg Details	See <u>Table 105: Leg Details</u> below.	R		

Table 105: Leg Details

	Leg Details					
The nur	The Leg Details associated with field: <i>legDetails</i> The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.					
Seq#	Seq # Field Name Data Include Key					
34. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0		

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
34. <i>n</i> .2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
34.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must	O
			be blank if <i>symbol</i> is populated.	
34.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if <i>symbol</i> is populated.	С
34. <i>n</i> .5	side	Choice	The side of the leg.	R
34. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Route Linkage Key: Event Date, senderIMID, destination, session, routedOrderID

5.2.2.2. Multi-Leg Route Cancelled Event

Industry Members must report a Multi-Leg Route Cancelled event to CAT when a route has been fully or partially cancelled. Partial cancellations of a route may be reported to CAT using a Multi-Leg Route Cancelled event or a Multi-Leg Route Modified event. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

The *routedOrderID* of the Multi-Leg Order Route event being cancelled must be reflected in the Multi-Leg Route Cancelled event. If a route cancellation is rejected by the destination venue, the Multi-Leg Route Cancelled event must be reported with a *routeRejectedFlag* of true.

Table 106: Multi-Leg Route Cancelled Event Field Specifications

	Multi-Leg Route Cancelled (MLCR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MLCR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the route which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the route which is being cancelled or the <i>orderID</i> of the immediately preceding Order Modified event.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С		
10	eventTimestamp	Timestamp	The date/time of the route cancellation. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the route being cancelled was a manual route.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	retiredFieldPosition		Field position is retired and must remain blank.			
15	senderIMID	Industry Member ID	The IMID used to identify the Industry Member that is routing the cancellation, known by the destination. Must equal the <i>senderIMID</i> in the Order Route event being cancelled.	С		

	Multi-Leg Route Cancelled (MLCR)						
Seq #	Field Name	Data Type	Description	Include Key			
			When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination.				
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Order Accepted event.				
16	destination	Industry Member ID / Exchange ID	When destinationType is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the destination in the Order Route event being cancelled.	С			
			Must equal the <i>receiverIMID</i> field on the Order Accepted event reported by the destination Industry Member.				
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Order Accepted event reported by the destination exchange.				
17	destinationType	Choice	Indicates whether the destination of the original Order Route event was an Industry Member, an exchange or a foreign broker-dealer.	R			
18	routedOrderID	Text (64)	The ID assigned to the Order Route event being cancelled. This value must match the value for routedOrderID reported by the destination in their Order Accepted report.	С			
			Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'.				
19	session	Text (40)	The session ID used when routing the order. Must equal the session in the Order Route event being cancelled.	С			
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Order Accepted event by the receiving exchange.				
20	routeRejectedFlag	Boolean	Indicates the route cancellation was not accepted by the destination (rejected or no response) when marked 'true'.	R			
21	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	0			
22	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.				

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.3. Multi-Leg Order Accepted Event

A Multi-Leg Order Accepted event must be reported to CAT when an Industry Member receives an order from another CAT Reporter (i.e., Industry Member or exchange), or from another IMID belonging to the same Industry Member (i.e., the same CRD).

New customer orders, orders received from a non-broker-dealer affiliate, and orders received from a non-reporting foreign broker-dealer must be reported using a Multi-Leg New Order event.

Table 107: Multi-Leg Order Accepted Event Specifications

	Multi-Leg Order Accepted (MLOA)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLOA	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	The order ID assigned to the order by the Industry Member upon acceptance. Must be unique within same date and CATReporterIMID combination.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	eventTimestamp	Timestamp	The date/time of receipt of the Multi-Leg order. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
10	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С		
11	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Multi-Leg Order Accepted event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order.	С		
12	manualFlag	Boolean	Must be marked as 'true' if the order was received	R		

	Multi-Leg Order Accepted (MLOA)						
Seq #	Field Name	Data Type	Description	Include Key			
			manually.				
13	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R			
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С			
15	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the order. When senderType is 'F', this value must equal the destination field on the Multi-Leg Order Route event reported by the routing Industry Member.	R			
16	senderIMID	Industry Member ID / Exchange ID	When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the senderIMID in the Multi-Leg Order Route event reported by the routing Industry Member.	R			
17	senderType	Choice	Indicates the type of origin from which the order is routed.	R			
18	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, senderIMID, and receiverIMID. Required when manualFlag is 'false'.	С			
19	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'	С			
20	quantity	Real Quantity	The number of units of the multi-leg order.	R			
21	minQty	Whole Quantity	The minimum quantity of units to be executed.	С			
22	orderType	Choice	The type of order received.	R			
23	timeInForce	Name/Value Pairs	The Time in Force for the order.	R			
24	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R			
25	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С			
26	affiliateFlag	Boolean	Indicates if the routing party is an affiliate of the Industry Member.	R			
27	solicitationFlag	Boolean	Indicates if the order was originated in response to an RFQ or other solicitation process. This field is not used to indicate if a registered representative of the firm solicited a customer/client	R			

	Multi-Leg Order Accepted (MLOA)						
Seq #	Field Name	Data Type	Description	Include Key			
			order.				
28	pairedOrderID	Text (64)	The pairedOrderID field may be populated if two or more offsetting orders are received with instructions to cross.	0			
29	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R			
30	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С			
31	legDetails	Leg Details	See Table 108: Leg Details below.	R			
32	deptType	Choice	This is the category of internal department, unit or desk receiving the order.	R			

Table 108: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
31. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
31.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
31. <i>n</i> .3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	С
31. <i>n</i> .4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if <i>symbol</i> is populated.	С
31. <i>n</i> .5	side	Choice	The side of the leg.	R
31. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Route Linkage Key: Event Date, senderIMID, receiverIMID, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, manualOrderID

5.2.4. Multi-Leg Order Internal Route Accepted Event

A Multi-Leg Order Internal Route Accepted event must be reported to CAT when a Multi-Leg order is passed to a different department or desk within the *CATReporterIMID*. A Multi-Leg Order Internal Route Accepted event is required to be reported from the perspective of the recipient desk, and indicates that an order was received by an internal destination.

In Phase 2d, Industry Members may choose to assign a new Order Key to an Option Order Internal Route Accepted event. If a new *orderID* is assigned, the *parentOrderID* must be populated with the *orderID* of the event that was internally routed, and the *parentOrderKeyDate* must be populated.

5.2.4.1. Multi-Leg Order Internal Route Accepted Event

Table 109: Multi-Leg Order Internal Route Accepted Event Specifications

	Multi-Leg Order Internal Route Accepted (MLIR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLIR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within <i>orderKeyDate, CATReporterIMID</i> , and <i>optionID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of the order that was internally routed.	R		
8	parentOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event from which the Order Internal Route Accepted event originated.	С		

	Multi-Leg Order Internal Route Accepted (MLIR)						
Seq #	Field Name	Data Type	Description	Include Key			
			Required when the <i>parentOrderID</i> is populated. Must be blank when <i>parentOrderID</i> is blank.				
9	parentOrderID	Text (64)	If a new Order ID has been assigned, this is the <i>orderID</i> of the event from which the Order Internal Route Accepted event originated. Must be unique within <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When populated, the <i>parentOrderID</i> must not be equal to the <i>orderID</i> within the record.	С			
			Required when the <i>parentOrderKeyDate</i> is populated. If a new Order ID has not been assigned, must be blank.				
10	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0			
11	eventTimestamp	Timestamp	The date/time of receipt of the Multi-Leg internal route. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R			
12	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R			
13	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	C			
14	deptType	Choice	The category of department, unit, or desk that is the destination of this internal route event.	R			
15	receivingDeskType	Choice	Field indicates the type of desk receiving the internally routed order. More granular than the field <i>deptType</i> .	R			
16	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'	С			
17	quantity	Real Quantity	The number of units of the multi-leg order.	R			
18	minQty	Whole Quantity	The minimum quantity of units to be executed.	С			
19	orderType	Choice	The type of order received.	R			
20	timeInForce	Name/Value Pairs	The Time in Force for the order.	R			
21	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R			

	Multi-Leg Order Internal Route Accepted (MLIR)					
Seq #	Field Name	Data Type	Description	Include Key		
22	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
23	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R		
24	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
25	legDetails	Leg Details	See <u>Table 110: Leg Details</u> below.	R		
26	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С		
			Required when the order is routed partially and a new orderID is not assigned to this event.			
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.			

Table 110: Leg Details

Leg Details

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
25.n.1	legRefID	Text (64)	Unique identifier of the leg.	0
25.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
25.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	С
25.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if <i>symbol</i> is populated.	С
25.n.5	side	Choice	The side of the leg.	R
25.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Parent Order Key: parentOrderKeyDate, CATReporterIMID, parentOrderID

5.2.4.2. Multi-Leg Order Internal Route Modified Event

Industry Members must report a Multi-Leg Order Internal Route Modified event to CAT when the Material Terms of the multi-leg internal route have been changed (e.g., price, quantity). All attributes and Material Terms of the modified multi-leg order internal route listed on this event must be restated with the modification(s) reflected.

Industry Members may assign a new Order Key to Multi-Leg Order Internal Route Modified events. If a unique *orderID* is assigned, the *priorOrderID* must be populated with the *orderID* of the Multi-Leg Order Internal Route Accepted event that is being modified, and the *priorOrderKeyDate* must be populated.

Table 111: Multi-Leg Order Internal Route Modified Event Field Specifications

	Multi-Leg Order Internal Route Modified (MLIM)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MLIM	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the order that was internally routed.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. When a new Order Key is not assigned, the <i>orderID</i> of the order that was internally routed.	R		
			Must be unique within <i>orderKeyDate</i> and <i>CATReporterIMID</i> combination.			
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs.	0		

	Multi-Leg Order Internal Route Modified (MLIM)					
Seq #	Field Name	Data Type	Description	Include Key		
			See Section 0 for guidance.			
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the event being modified.	С		
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the orderID of the event being modified.	С		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
12	eventTimestamp	Timestamp	The date/time the internal route was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	manualFlag	Boolean	Must be marked as 'true' if the internal route is modified manually.	R		
14	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
15	deptType	Choice	The category of department, unit, or desk that received the internal route.	R		
16	receivingDeskType	Choice	Indicates the type of desk that received the internal route. More granular than the field deptType.	R		
17	initiator	Choice	Indicates who initiated the internal route modification.	R		
18	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.			
19	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'	С		
20	quantity	Real Quantity	The number of units of the multi-leg order.	R		
21	minQty	Whole Quantity	The minimum quantity of units to be executed.	С		
22	leavesQty	Real Quantity	The number of units of the order left open at the receiving desk after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R		
23	orderType	Choice	The type of order received from the routing desk or department.	R		

	Multi-Leg Order Internal Route Modified (MLIM)					
Seq #	Field Name	Data Type	Description	Include Key		
24	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
25	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
26	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
27	requestTimestamp	Timestamp	The date/time the internal route modification was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MLIMR event. Must not be populated if the request is captured in a separate MLIMR event. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be	С		
			reported to milliseconds or a finer increment up to nanoseconds.			
28	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R		
29	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
30	legDetails	Leg Details	See <u>Table 112: Leg Details</u> below.	R		
31	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new orderID is not assigned to this event. Not required when the order is routed in full or when a new orderID is assigned to this event.	С		
32	priorDeskOrderID	Text (64)	If a new deskOrderID has been assigned, this is the deskOrderID of the event being modified. When populated, the priorDeskOrderID must not be equal to the deskOrderID.	С		

Table 112: Leg Details

1	PΩ	Do	sta	ile

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
30. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
30. <i>n</i> .2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	О

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
30.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	O
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
30. <i>n</i> .4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
30. <i>n</i> .5	side	Choice	The side of the leg.	R
30. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, priorOrderID

5.2.4.3. Multi-Leg Order Internal Route Cancelled Event

If a multi-leg internal route is cancelled, a Multi-Leg Order Internal Route Cancelled event must be reported. Partial cancellations may be reported using a Multi-Leg Order Internal Route Modified event or Multi-Leg Order Internal Route Cancelled event with *leavesQty*. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved.

Table 113: Multi-Leg Order Internal Route Cancelled Event Field Specifications

	Multi-Leg Order Internal Route Cancelled (MLIC)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		

	Multi-Leg Order Internal Route Cancelled (MLIC)					
Seq #	Field Name	Data Type	Description	Include Key		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLIC	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The orderKeyDate of the internal route which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the internal route which is being cancelled.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time the internal route was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the order is cancelled manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	leavesQty	Real Quantity	The number of units of the order left open at the receiving desk after the modification has occurred.	R		
15	initiator	Choice	Indicates who initiated the internal route cancellation.	R		
16	requestTimestamp	Timestamp	The date/time the internal route cancellation was requested. Required if the request was received from the sending desk, and the request is not captured in a separate MLICR event.	С		
			Must not be populated if the request is captured in a separate MLICR event. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to			

	Multi-Leg Order Internal Route Cancelled (MLIC)				
Seq #	Field Name	Data Type	Description	Include Key	
			nanoseconds.		
17	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multileg order.	0	
18	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С	
			Required when the order is routed partially and a new orderID is not assigned to this event.		
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.		

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.4.4. Multi-Leg Order Internal Route Modification Request Event

Industry Members must report a Multi-Leg Order Internal Route Modification Request event to CAT when a desk within the firm receives a request to modify the Material Terms of an internal route if the request is not captured in the *requestTimestamp* field of the Multi-Leg Order Internal Route Modified event. All attributes and Material Terms of the modified internal route listed on this event must be restated with the requested modification(s) reflected.

Table 114: Multi-Leg Order Internal Route Modification Request Event Field Specifications

	Multi-Leg Order Internal Route Modification Request (MLIMR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLIMR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The orderKeyDate of the order event for which the internal route modification was requested.	R		

	Multi-l	Leg Order Inter	nal Route Modification Request (MLIMR)	
Seq #	Field Name	Data Type	Description	Include Key
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the internal route modification was requested.	R
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С
10	eventTimestamp	Timestamp	The date/time the internal route modification request was received. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R
11	manualFlag	Boolean	Must be marked as 'true' if the internal route modification was requested manually.	R
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С
13	deptType	Choice	The category of department, unit, or desk that received the internal route modification request.	R
14	receivingDeskType	Choice	Indicates the type of desk that received the internal route modification request. More granular than the field deptType.	R
15	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
16	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'.	С
17	quantity	Real Quantity	The number of units of the multi-leg order.	R
18	minQty	Whole Quantity	The minimum quantity of units to be executed.	С
19	retiredFieldPosition		Field position is retired and must remain blank.	
20	orderType	Choice	The type of order received from the routing desk or department.	R
21	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С

	Multi-Leg Order Internal Route Modification Request (MLIMR)					
Seq #	Field Name	Data Type	Description	Include Key		
22	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
23	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
24	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R		
25	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
26	legDetails	Leg Details	See <u>Table 115: Leg Details</u> below.	R		
27	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С		
			Required when the order is routed partially and a new orderID is not assigned to this event.			
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.			

Table 115: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
26. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
26.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
26.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	O
26. <i>n</i> .4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
26.n.5	side	Choice	The side of the leg.	R
26. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire	R

Leg Details					
The Leg Details associated with field: <i>legDetails</i> The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.					
Field Name	Data Type	Description quantity for the leg, or as the lowest common factor.	Include Key		
1	nber legs that may be le size constraints mu	nber legs that may be represented le size constraints must be repres	Details associated with field: <i>legDetails</i> nber legs that may be represented in each record is limited by file size. Legs that cannot be represented in a Multi-Leg Order Supplement event. Data		

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.4.5. Multi-Leg Order Internal Route Cancel Request Event

Industry Members must report a Multi-Leg Internal Route Cancel Request event to CAT when a desk within the firm receives a request to cancel an internal route if the request is not captured in the requestTimestamp field of the Multi-Leg Order Internal Route Modified event.

Table 116: Multi-Leg Order Internal Route Cancel Request Event Field Specifications

	Multi-Leg Order Internal Route Cancel Request (MLICR)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLICR	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the order event for which the cancellation was requested.	R		
7	orderID	Text (64)	The <i>orderID</i> of the order event for which the cancellation was requested.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to	С		

	Multi-Leg Order Internal Route Cancel Request (MLICR)					
Seq #	Field Name	Data Type	Description	Include Key		
			an event that was reported with a different CATReporterIMID.			
10	eventTimestamp	Timestamp	The date/time the internal route cancellation request was received. If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	manualFlag	Boolean	Must be marked as 'true' if the cancel request was received manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
14	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multileg order.	0		
15	deskOrderID	Text (64)	Internal identifier assigned to this event by the department or desk.	С		
			Required when the order is routed partially and a new orderID is not assigned to this event.			
			Not required when the order is routed in full or when a new <i>orderID</i> is assigned to this event.			

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.5. Multi-Leg Child Order Event

A Multi-Leg Child Order event must be reported to CAT when a Multi-Leg order is sliced within the desk or department it is being worked, and is assigned a new order identifier. While all CAT reportable activity must be reported to CAT in applicable phases, Multi-Leg Child Order events are not required to be utilized for CAT reporting. These event types are provided for the convenience of Industry Members to help model these types of order handling scenarios.

The following rules apply with respect to Child Option Orders:

- Multi-Leg Child Order events can only be used when an order is sliced and assigned new order IDs within the same desk. A Multi-Leg Order Internal Route Accepted event must be reported when routed to another desk.
- A child order may be generated off of another child order without limitation.
- Multi-Leg Child Orders must belong to the same FDID as the parent order.

Multi-Leg Child Order events must *not* be used to represent a multi-leg option order being
"legged out". Multi-Leg Child Order events must only be used to represent a multi-leg option order
being sliced while maintaining the same strategy

5.2.5.1. Multi-Leg Child Order Event

Table 117: Multi-Leg Child Order Event Specifications

Multi-Leg Child Order (MLCO)					
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	O	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MLCO	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The date and time the <i>orderID</i> was assigned.	R	
7	orderID	Text (64)	The order ID assigned to the order by the Industry Member upon acceptance. Must be unique within same date and CATReporterIMID combination.	R	
8	parentOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the event from which the Multi-Leg Child Order event originated.	R	
9	parentOrderID	Text (64)	The <i>orderID</i> of the event from which the Multi-Leg Child Order event originated. The <i>parentOrderID</i> must not be equal to the <i>orderID</i> within the record.	R	
10	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0	
11	eventTimestamp	Timestamp	The date/time the Multi-Leg child order was originated. Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
12	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero.	С	
			This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number.		

Multi-Leg Child Order (MLCO)				
Seq #	Field Name	Data Type	Description	Include Key
			Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.	
13	quantity	Real Quantity	The number of units of the multi-leg order.	R
14	minQty	Whole Quantity	The minimum quantity of units to be executed.	С
15	orderType	Choice	The type of order received.	R
16	timeInForce	Name/Value Pairs	The Time in Force for the order.	R
17	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R
18	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С
19	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R
20	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С
21	legDetails	Leg Details	See <u>Table 118: Leg Details</u> below.	R
22	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually.	0
			Requirements for populating this field may be expanded in future phases of CAT.	
23	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С

Table 118: Leg Details

Leg Details

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
21. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
21.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
21. <i>n</i> .3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	С
			Required if the leg being represented is an option leg. Must	

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
			be blank if <i>symbol</i> is populated.	
21.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
21. <i>n</i> .5	side	Choice	The side of the leg.	R
21. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Parent Order Key: parentOrderKeyDate, CATReporterIMID, parentOrderID

5.2.5.2. Multi-Leg Child Order Modified Event

Industry Members must report a Multi-Leg Child Order Modified event to CAT when the Material Terms of the child order have been changed (e.g., price, quantity). All attributes and Material Terms of the modified child order listed on this event must be restated with the modification(s) reflected.

A Multi-Leg Child Order Modified event is reported only in cases when a multi-leg child order is modified. A Multi-Leg Child Order Modified event must not be used when modifying a Multi-Leg Child Order event.

Industry Members are required to assign a new Order Key to all Multi-Leg Child Order Modified events. A unique *orderID* must be assigned, the *priorOrderID* must be populated with the *orderID* of the Multi-Leg Child Order event that is being modified, and the *priorOrderKeyDate* must be populated.

Table 119: Multi-Leg Child Order Modified Event Field Specifications

	Multi-Leg Child Order Modified (MLCOM)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		

	Multi-Leg Child Order Modified (MLCOM)					
Seq #	Field Name	Data Type	Description	Include Key		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLCOM	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the Child Order event which is being modified.	R		
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within <i>orderKeyDate</i> and <i>CATReporterIMID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of the Child Order being modified.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	priorOrderKeyDate	Timestamp	If a new Order ID has been assigned, this is the orderKeyDate of the Child Order being modified.	С		
10	priorOrderID	Text (64)	If a new Order ID has been assigned, this is the orderID of the Child Order being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	С		
11	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
12	eventTimestamp	Timestamp	The date/time at which the child order was modified (e.g., the time that the child order was confirmed to be modified in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
13	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.			
14	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be	С		

	Multi-Leg Child Order Modified (MLCOM)				
Seq #	Field Name	Data Type	Description	Include Key	
			represented as a positive number, and credits must be represented as a negative number. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.		
15	quantity	Real Quantity	The number of units of the multi-leg order.	R	
16	minQty	Whole Quantity	The minimum quantity of units to be executed.	С	
17	leavesQty	Real Quantity	The number of units of the Child Order left open after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R	
18	orderType	Choice	The type of order being submitted.	R	
19	timeInForce	Name/Value Pairs	The Time in Force for the order.	R	
20	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R	
21	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С	
22	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R	
23	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С	
24	legDetails	Leg Details	See <u>Table 120: Leg Details</u> below.	R	
25	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually. Requirements for populating this field may be expanded in future phases of CAT.	0	
26	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С	

Table 120: Leg Details

Leg Details

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
24.n.1	legRefID	Text (64)	Unique identifier of the leg.	0
24.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must	С

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
			be blank if optionID is populated.	
24.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	С
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
24.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if <i>symbol</i> is populated.	С
24.n.5	side	Choice	The side of the leg.	R
24.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, priorOrderID

5.2.5.3. Multi-Leg Child Order Cancelled Event

If a multi-leg child order is cancelled, a Multi-Leg Child Order Cancelled event must be reported to CAT by the Industry Member.

A partial cancellation can be reported either with a Multi-Leg Child Order Modified event or Multi-Leg Child Order Cancelled event with *leavesQty*, depending on how it is handled by the Industry Member. If a cancel message was used, the Industry Member must report a Multi-Leg Child Order Cancelled event to CAT. If a modify or cancel/replace message was used, a Multi-Leg Child Order Modified event must be reported to CAT. This keeps the reported event in line with the action taken by the Industry Member.

Table 121: Multi-Leg Child Order Cancelled Event Field Specifications

	Multi-Leg Child Order Cancelled (MLCOC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm	R	

	Multi-Leg Child Order Cancelled (MLCOC)					
Seq #	Field Name	Data Type	Description	Include Key		
			initiated correction or a repair of a CAT error.			
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date=""> <firm identifier="" roe=""></firm></event>	R		
			Must be unique for the Event Date and CAT Reporter IMID.			
4	type	Message Type	MLCOC	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Child Order event which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the Child Order event which is being cancelled.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С		
10	eventTimestamp	Timestamp	The date/time at which the child order was cancelled (e.g., the time that the child order was confirmed to be cancelled in the firm's OMS/EMS). Timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
11	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.			
12	cancelQty	Real Quantity	The quantity of the Child order being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
13	leavesQty	Real Quantity	The number of units of the Child Order left open after the cancellation.	R		
			Full cancellation will result in a zero in the field.			
14	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	0		
15	manualFlag	Boolean	May optionally be marked as 'true' if the order is received or captured manually.	0		
			Requirements for populating this field may be expanded in future phases of CAT.			
16	electronicTimestamp	Timestamp	The time at which the event is systematized. Required	С		
			· · · · · · · · · · · · · · · · · · ·			

	Multi-Leg Child Order Cancelled (MLCOC)				
Seq #	Seq # Field Name Data Type Description Include Key				
			when <i>manualFlag</i> is 'true' and the event is systematized.		

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.6. Multi-Leg Order Modified Event

Industry Members must report a Multi-Leg Order Modified event to CAT when the Material Terms of a Multi-Leg order have been changed (e.g., price, quantity) or when a Multi-Leg order is cancel/replaced. Changes to the strategy of the order, such as changes to the ratio, changes to the product or the side of the product contained within the legs (e.g., buy to sell), or changes to the number of legs, are not considered a modification to the order. This activity must be reported to CAT as a new multi-leg order event.

All attributes and Material Terms of the modified order listed on this event must be restated with the modification(s) reflected. If the order is a combined order, the *aggregatedOrders* field must be restated every time the order is modified or cancel/replaced. Changes to the orders being combined in the *aggregatedOrders* field are considered a modification to the order.

Industry Members may assign a new Order Key to all Multi-Leg Order Modified events. If a unique orderID is assigned, the priorOrderID must be populated with the orderID of the order that is being modified, and the priorOrderKeyDate must be populated. If the order has been modified more than once, the priorOrderID must refer to orderID of the immediately preceding modification which will not be the original Order ID.

Industry Members are not required to report the modification request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a modification request was received that was too late to modify, and the order was not terminal (e.g., the order was "in-flight" and there was no confirmation time), the request must be reported as a Multi-Leg Order Modification Request event.

Table 122: Multi-Leg Order Modified Event Specifications

	Multi-Leg Order Modified (MLOM)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm	R		

	Multi-Leg Order Modified (MLOM)				
Seq#	Field Name	Data Type	Description	Include Key	
			initiated correction or a repair of a CAT error.		
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R	
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>		
			Must be unique for the Event Date and CAT Reporter IMID.		
4	type	Message Type	MLOM	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the <i>orderID</i> was assigned. When a new Order Key is not assigned, the <i>orderKeyDate</i> of the CAT event which is being modified.	R	
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within same date and CATReporterIMID combination.	R	
			When a new Order Key is not assigned, the orderID of the Order Modified (Cancel/Replace) event which is being modified.		
8	priorOrderKeyDate	Timestamp	If a new Order Key has been assigned, this is the orderKeyDate of the event being modified.	С	
9	priorOrderID	Text (64)	If a new Order Key has been assigned, this is the orderID of the event being modified. When populated, the priorOrderID must not be equal to the orderID within the record.	С	
10	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs.	0	
			See Section 0 for guidance.		
11	eventTimestamp	Timestamp	The date/time at which the order was modified (e.g., the time that the order was confirmed to be modified in the firm's OMS/EMS). If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R	
12	manualOrderKeyDate	Timestamp	The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated.	С	
13	manualOrderID	Text (64)	When this is a duplicative electronic message of a previously (separately) reported manual Multi-Leg Order Modified event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order.	С	
14	manualFlag	Boolean	Must be marked as 'true' if the order is handled manually.	R	

Multi-Leg Order Modified (MLOM)							
Seq#	Field Name	Data Type	Description	Include Key			
15	electronicDupFlag	Boolean	Indicates whether this is a duplicative electronic message of a manual event.	R			
16	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С			
17	receiverIMID	Industry Member ID	Required when the modification is received from an Industry Member. The IMID of the Industry Member receiving the routed order modification. When senderType is 'F', this value must equal the destination field on the Multi-Leg Order Route event reported by the routing Industry Member.	С			
18	senderIMID	Industry Member ID / Exchange ID	Required when the modification is received from an Industry Member. When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed, and must equal the senderIMID in the Order Route event reported by the routing Industry Member.	С			
19	senderType	Choice	Required when the modification is received from an Industry Member. Indicates the type of origin from which the order is routed.	С			
20	routedOrderID	Text (64)	The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, senderIMID, and receiverIMID. Required when senderType is 'F' and manualFlag is 'false'.	С			
21	initiator	Choice	Indicates who initiated the order modification.	R			
22	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'.	С			
23	quantity	Real Quantity	The number of units of the multi-leg order.	R			
24	minQty	Whole Quantity	The minimum quantity of units to be executed.	С			
25	leavesQty	Real Quantity	The number of units of the order left open after the modification has occurred. Must be less than or equal to <i>quantity</i> .	R			
26	orderType	Choice	The type of order being submitted.	R			
27	timeInForce	Name/Value Pairs	The Time in Force for the order.	R			
28	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R			

Multi-Leg Order Modified (MLOM)							
Seq#	Field Name	Data Type	Description	Include Key			
29	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С			
30	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.				
31	aggregatedOrders	Aggregated Orders	When applicable, the order ID of each customer/client order being combined. Refer to Appendix C for representative order linkage requirements.	С			
	ated Orders – Start h order being combined <i>r</i>	, the following val	ues are required.				
31. <i>n</i> .1	orderID	Text (64)	orderID of the order being combined.	R			
31. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R			
31. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С			
31. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .	С			
Aggrega	ated Orders – End						
32	representativeInd	Choice	Indicates if the order is a combined order.	R			
33	requestTimestamp	Timestamp	The date/time the modification was requested. Required if a request was received, and the request is not captured in a separate MLOMR event. Must not be populated if the request is captured in a separate MLOMR event. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp	С			
			must be reported to milliseconds or a finer increment up to nanoseconds. Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be required in future phases of CAT.				
34	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R			
35	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С			
36	legDetails	Leg Details	See <u>Table 123: Leg Details</u> below.	R			

Table 123: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
36. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
36. <i>n</i> .2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
36.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	O
36. <i>n</i> .4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
36. <i>n</i> .5	side	Choice	The side of the leg.	R
36. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, aggregatedOrders.orderID
- Prior Order Key: priorOrderKeyDate, CATReporterIMID, priorOrderID
- Route Linkage Key: Event Date, receiverIMID, senderIMID, routedOrderID
- Manual Order Key: manualOrderKeyDate, CATReporterIMID, manualOrderID

5.2.6.1. Multi-Leg Order Modification Request Event

The Multi-Leg Order Modification Request event is required when a request is received to modify to the Material Terms of an order if the request is not captured in the *requestTimestamp* field of the Multi-Leg Order Modification event. Industry Members are not required to report a Multi-Leg Order Modification Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 124: Multi-Leg Order Modification Request Event Field Specifications

Multi-Leg Order Modification Request (MLOMR) Seq Include Field Name **Data Type Description** Key actionType Choice Indicates whether the event is a new event, a firm R initiated correction or a repair of a CAT error. 2 errorROFID Unsigned Required when actionType is 'RPR'. Must be blank C when actionType is 'NEW'. 3 firmROFID Text (64) An identifier assigned to the record by the reporting R Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. R 4 Message Type MI OMR type 5 **CAT Reporter** CATReporterIMID The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the **IMID** CATReporterIMID in the filename. 6 orderKeyDate **Timestamp** The orderKeyDate of the multi-leg order event for R which the modification was requested. 7 orderID Text (64) The orderID of the multi-leg order event for which the R modification was requested. 8 The symbol of the underlying instrument for one or 0 underlying Symbol more of the option legs. See Section 0 for guidance. 9 originatingIMID **CAT Reporter** An identifier used in instances of a merger or C **IMID** acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID. The date/time of receipt of the modification request. If R 10 eventTimestamp Timestamp manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds. Must be marked as 'true' if the modification was R 11 manualFlag Boolean requested manually. С 12 electronicTimestamp Timestamp The time at which the event is systematized. Required when manualFlag is 'true' and the event is systematized. 13 receiverIMID Industry Required when the modification request is received С Member ID from an Industry Member or an exchange. The IMID of the Industry Member receiving the routed order modification. Industry senderIMID Required when the modification request is received 14 С Member ID / from an Industry Member or an exchange. Exchange ID When senderType is 'F', this value is the IMID of the sending Industry Member from which the order is routed.

	Multi-Leg Order Modification Request (MLOMR)					
Seq #	Field Name	Data Type	Description	Include Key		
			When senderType is 'E', this value is the Exchange ID of the sending entity from which the order is routed.			
15	senderType	Choice	Required when the modification request is received from an Industry Member or an exchange. Indicates the type of origin from which the order is routed.	С		
16	timeInForce	Name/Value Pairs	12, 12, 12, 12, 12, 12, 12, 12, 12, 12,			
17	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. Required when orderType is 'LMT'. Must be blank when orderType is 'MKT'.	С		
18	quantity	Real Quantity	The number of units of the multi-leg order.	R		
19	minQty	Whole Quantity	The minimum quantity of units to be executed.	С		
20	orderType	Choice	The type of order being submitted.	R		
21	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
22	handlingInstructions	Name/Value Pairs	The order handling instructions for the order.	С		
23	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.	R		
24	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
25	legDetails	Leg Details	See <u>Table 125: Leg Details</u> below.	R		

Table 125: Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
25. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
25.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	О
25.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended	С

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
			before the OSI symbol elements. See the Option Symbols section for more information.	
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
25.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if <i>symbol</i> is populated.	O
25.n.5	side	Choice	The side of the leg.	R
25. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.7. Multi-Leg Order Cancelled Event

The Multi-Leg Order Cancelled event is reported when a Multi-Leg order is fully or partially cancelled. However, when routing between Industry Members, both parties must communicate and use the same method to report to CAT. If one party reports to CAT using the cancellation method and the other party reports to CAT using a modification method, this will result in unlinked records that must be resolved. Changes to the strategy of the order, such as changes to the ratio, a reduction of the *legRatioQuantity*, or a reduction in the number of legs, are not considered a partial cancellation.

Industry Members are not required to report the cancel request to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT. If a cancellation request was received that was too late to cancel, and the order was not terminal (e.g., the order was "in-flight" and there is no confirmation time), the request must be reported as a Multi-Leg Order Cancel Request event.

Table 126: Multi-Leg Order Cancelled Event Specifications

	Multi-Leg Order Cancelled (MLOC)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	

	Multi-Leg Order Cancelled (MLOC)					
Seq #	Field Name	Data Type	Description	Include Key		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLOC	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	orderKeyDate	Timestamp	The <i>orderKeyDate</i> of the Multi-Leg order event which is being cancelled.	R		
7	orderID	Text (64)	The <i>orderID</i> of the Multi-Leg order event which is being cancelled.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
9	eventTimestamp	Timestamp	The date/time at which the order was cancelled (e.g., the time that the order was confirmed to be cancelled in the firm's OMS/EMS). If <i>manualFlag</i> is 'true', timestamp must be reported to seconds. If <i>manualFlag</i> is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R		
10	manualFlag	Boolean	Must be marked as 'true' if the order was cancelled manually.	R		
11	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized.	С		
12	cancelQty	Real Quantity	The number of units being cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		
13	leavesQty	Real Quantity	The number of units of the order left open after the cancel event. For full order cancellations, zero must be populated in this field.	R		
14	initiator	Choice	Indicates who initiated the order cancellation.	R		
15	requestTimestamp	Timestamp	The date/time the cancellation was requested. Required if a request was received, and the request is not captured in a separate MLOCR event. Must not be populated if the request is captured in a separate MLOCR event.	С		
			If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.			
			Not required if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. May be required in future phases of CAT.			

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.7.1. Multi-Leg Order Cancel Request Event

The Multi-Leg Order Cancel Request event is required when a request is received to cancel an order if the request is not captured in the *requestTimestamp* field of the Multi-Leg Order Cancelled event. Industry Members are not required to report a Multi-Leg Order Cancel Request event to CAT if the order is terminal (e.g., it has already been fully executed or cancelled) in Phase 2d. However, this activity may be required in future phases of CAT.

Table 127: Multi-Leg Order Cancel Request Event Field Specifications

Multi-Leg Order Cancel Request (MLOCR)					
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MLOCR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	The orderKeyDate of the multi-leg order event for which the cancellation was requested.	R	
7	orderID	Text (64)	The orderID of the multi-leg order event for which the cancellation was requested.	R	
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0	
9	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С	
10	eventTimestamp	Timestamp	The date/time of receipt of the cancel request. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or finer increment up to	R	

	Multi-Leg Order Cancel Request (MLOCR)					
Seq #	Field Name	Data Type	Description	Include Key		
			nanoseconds.			
11	manualFlag	Boolean	Must be marked as 'true' if the cancellation was requested manually.	R		
12	electronicTimestamp	Timestamp	The time at which the event is systematized. Required when <i>manualFlag</i> is 'true'.	С		
13	cancelQty	Real Quantity	The quantity requested to be cancelled. May populate a zero value to indicate that the cancel was for the full remaining quantity.	R		

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

5.2.8. Multi-Leg Quotes

Multi-Leg Quote events are used to report electronic quotes or electronic RFQ responses that are not immediately actionable that need to be reported to CAT under the definition of an "order" under Rule 613(j)(8), of multi-leg quotes which are provided by or received in an Industry Member's RFQ platform or Third Party RFQ Platform in CAT reportable Eligible Securities.

The following guidance applies to quotes of multi-leg quotes on Eligible Securities sent to a CAT Reporter's or a Third Party Vendor RFQ platform:

- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes in CAT reportable Eligible
 Securities that are not immediately actionable that need to be reported to CAT, sent to an RFQ
 platform operated by an Industry Member or a Third Party Vendor must be reported using the
 Multi-Leg New Quote and Multi-Leg Routed Quote events.
- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes in CAT reportable Eligible Securities received by an Industry Member CAT Reporter operating an RFQ system using the Multi-Leg Quote Received event.
- Multi-Leg Quotes in CAT reportable Eligible Securities that meet the definition of bid or offer under the CAT NMS Plan sent by a broker-dealer to a quotation venue not operated by a CAT Reporter must be reported using the Multi-Leg New Quote event.

5.2.8.1. Multi-Leg New Quote Events

The Multi-Leg New Quote Event is used to report the following:

- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes that are not immediately
 actionable that need to be reported to CAT, originated in CAT reportable Eligible Securities
 ultimately sent to RFQ system operated by an Industry Member
- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes that are not immediately
 actionable that need to be reported to CAT, originated in CAT reportable Eligible Securities
 ultimately sent to a Third Party RFQ Platform not operated by a CAT Reporter.
- Any other electronic quotes which are provided by or received in a CAT Reporter's order/quote
 handling or execution systems in CAT reportable securities and are provided by an Industry
 Member to other market participants off a national securities exchange, as described in CAT
 FAQ B45.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated.

If the field *onlyOneQuoteFlag* is populated as 'true', any Multi-Leg New Quote event offered by the same CATReporterIMID to the same destination in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the *onlyOneQuoteFlag* method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the Multi-Leg New Quote Event must not maintain the same quote ID as the quote that was cancelled.

Multi-Leg Quote events are exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 128: Multi-Leg New Quote Event Field Specifications

	Multi-Leg New Quote (MLNQ)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter IMID.			

		M	lulti-Leg New Quote (MLNQ)	
Seq #	Field Name	Data Type	Description	Include Key
4	type	Message Type	MLNQ	R
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination.	R
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. Maybe required in future phases of CAT. See Section 0 for guidance.	0
9	eventTimestamp	Timestamp	The date/time the quote was originated by the Industry Member.	R
10	onlyOneQuoteFlag	Boolean	Value is 'true' if the recipient only allows one quote to be active per <i>symbol</i> at a time for this Industry Member. Otherwise, false.	R
11	bidPrice	Price	Net price being bid. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number	С
12	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0'.	С
13	askPrice	Price	Net price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number	С
14	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'.	С
15	firmDesignatedID	Text (40)	Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	R
16	accountHolderType	Choice	Represents the type of account that originated this quote.	R
17	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg quote.	R
18	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R

	Multi-Leg New Quote (MLNQ)				
Seq #	Field Name	Data Type	Description	Include Key	
19	RFQFlag	Boolean	RFQ only field. Indicates if the CAT quote event reflects a response to an RFQ. Must be 'true' when <i>RFQID</i> field is populated.	R	
20	quotePriceType	Choice	Indicates how the net price of the quote was represented in the price field.	С	
21	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0	
22	legDetails	Leg Details	See Table 129: Leg Details below.	R	

Table 129: Leg Details

The Leg Details associated with field: *legDetails*

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
22.n.1	legRefID	Text (64)	Unique identifier of the leg.	0
22.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
22.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	O
22.n.4	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
22.n.5	side	Choice	The side of the leg.	R
22.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

• Option Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID

5.2.8.2. Multi-Leg Routed Quote Event

The Multi-Leg Routed Quote Event is used to report the following:

- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes that are not immediately
 actionable that need to be reported to CAT, in CAT reportable Eligible Securities sent to an RFQ
 platform or Third Party RFQ Platform operated by an Industry Member
- Multi-Leg Quotes or electronic RFQ responses of multi-leg quotes that are not immediately
 actionable that need to be reported to CAT, in CAT reportable Eligible Securities sent to a
 quotation venue not operated by a CAT Reporter.
- Any other electronic quotes which are provided by or received in a CAT Reporter's order/quote
 handling or execution systems in CAT reportable securities and are provided by an Industry
 Member to other market participants off a national securities exchange, as described in CAT FAQ B45...

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 130: Multi-Leg Routed Quote Event Field Specifications

	Multi-Leg Routed Quote (MLRQ)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message	MLRQ	R		

	Multi-Leg Routed Quote (MLRQ)					
Seq #	Field Name	Data Type	Description	Include Key		
5	CATReporterIMID	Type CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R		
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. Maybe required in future phases of CAT. See Section 0 for guidance.	0		
9	eventTimestamp	Timestamp	The date/time the quote was sent by the Industry Member.	R		
10	senderIMID	Industry Member ID	The IMID of the Industry Member that is sending the quote, as known by the destination. This value must match the senderIMID on the Quote Received event reported by the destination.	R		
11	destination	Industry Member ID	When destinationType is 'F', this field contains the SRO-assigned identifier of the destination Industry Member. This value must match the receiverIMID field on the Quote Received event reported by the destination.	С		
			Not required when <i>destinationType</i> is 'S' or 'N'.			
12	routedQuoteID	Text (64)	The quote ID sent to the recipient of the quote. When dupROIDCond is 'false', must be unique per combination of Event Date, symbol, destination, and senderIMID.	R		
13	dupROIDCond	Boolean	Indicates when a Routed Quote event maintains the original routedQuoteID.	R		
14	bidPrice	Price	Net price being bid. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number	С		
15	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0'.	С		
16	askPrice	Price	Net price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number	С		
17	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'.	С		
18	quoteRejectedFlag	Boolean	If the result of the quote is rejected or no response was received, value should be 'true'.	R		

	Multi-Leg Routed Quote (MLRQ)					
Seq #	Field Name	Data Type	Description	Include Key		
19	destinationType	Choice	Indicates whether the <i>destination</i> of the route is an Industry Member or a non-broker dealer.	R		
			Only applicable when an Industry Member is generating quotes and sending quotes to an non-CAT reporting entity in response to an RFQ or other similar form of solicitation.			
20	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multileg quote.	R		
21	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R		
22	quotePriceType	Choice	Indicates how the net price was represented in the price field.	С		
23	validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0		
24	legDetails	Leg Details	See <u>Table 131: Leg Details</u> below.	R		

Table 131: Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
24. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
24.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if optionID is populated.	С
24.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	С
			Required if the leg being represented is an option leg. Must be blank if symbol is populated.	
24.n.4	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
24.n.5	side	Choice	The side of the leg.	R
24.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg	R

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq # Field Name Data Type Description

Security. May be represented as the entire quantity for the leg, or as the lowest common factor.

Linkage Keys for this Reportable Event:

- Option Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID
- Option Quote Route Key: Event Date, senderIMID, destination, routedQuoteID

5.2.8.3. Multi-Leg Quote Supplement Event

The Multi-Leg Quote Supplement event may be used to supplement any Multi-Leg Quote event. Multi-Leg Quote Supplement events are considered as additions to a Multi-Leg Quote event, not replacements or modifications. There is no limit to the number of Multi-Leg Quote Supplement events that may supplement a single Multi-Leg Quote event. When supplementing a Multi-Leg Routed Quote event, the Industry Member must identify the specific Multi-Leg Routed Quote event being supplemented by populating the Route Linkage Key fields.

The Multi-Leg Quote Supplement event is used in the following scenarios.

- A Multi-Leg Quote event has more legs than can be represented in an quote event, additional legs must be represented in a Multi-Leg Quote Supplement event.
- An Industry Member receives an order for a new account and the new account number, on which the FDID is based, is not yet available for creation and reporting of the CAT multi-leg new quote event. If an FDID has not yet been created when a multi-leg quote has been received, the Industry Member must populate the firmDesignatedID field in its Multi-Leg New Quote event with a value of 'PENDING'. Once the FDID becomes available, the Industry Member must report the actual FDID in the firmDesignatedID field in an Multi-Leg Quote Supplement. Any Multi-Leg Quote Supplement event with an FDID populated will not be considered late for CAT reporting purposes if it is received by T+3 @ 8:00 AM ET.
- A Multi-Leg Routed Quote event is rejected by the venue to which it was routed, and the Industry
 Member chooses to report the quoteRejectedFlag in this separate Multi-Leg Quote Supplement
 event. If an Industry Member must update the quoteRejectedFlag on a Multi-Leg Routed Quote
 event from 'false' to 'true', this must be done through a correction to the original submission using
 'COR'.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.

Table 132: Multi-Leg Order Supplement Event Specifications

	Multi-Leg Quote Supplement (MLQS)						
Seq #	Field Name	Data Type	Description	Include Key			
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R			
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С			
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R			
4	type	Message Type	MLQS	R			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0			
6	quoteKeyDate	Timestamp	The orderKeyDate of the Multi-Leg quote event this event supplements.	R			
7	quoteID	Text (64)	The <i>quoteID</i> of the Multi-Leg order event this event supplements.	R			
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0			
9	eventTimestamp	Timestamp	The date/time of Multi-Leg order event this event supplements.	R			
10	firmDesignatedID	Text (40)	Required when reporting a supplement to an MLNQ event that was reported prior to the FDID being available. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	С			
11	senderIMID	Industry Member ID	When supplementing a Multi-Leg Routed Quote event, the sender/IMID of the Multi-Leg Routed Quote event that this event supplements. When destinationType is 'F', this value must equal the sender/IMID on the Multi-Leg Quote Received event reported by the destination.	С			
12	destination	Industry Member ID / Exchange ID	When supplementing a Multi-Leg Routed Quote event, the <i>destination</i> of the Multi-Leg Routed Quote event that this event supplements.	С			

		Multi-L	eg Quote Supplement (MLQS)	
Seq #	Field Name	Data Type	Description	Include Key
			When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Multi-Leg Quote Received event reported by the destination Industry Member. Not required when destinationType is 'S' or 'N'.	
13	destinationType	Choice	When supplementing a Multi-Leg Routed Quote event, the <i>destinationType</i> of the Multi-Leg Routed Quote event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	С
14	routedQuoteID	Text (64)	When supplementing a Multi-Leg Routed Quote event, the ID assigned to the quote by the Industry Member when routing the quote to the destination. Must match the <i>routedQuoteID</i> of the Routed Quote event that this event supplements. Required when <i>destinationType</i> is 'F'.	С
15	quoteRejectedFlag	Boolean	Indicates the routed quote was not accepted by the destination (rejected or no response) when marked 'true'.	R
16	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R
17	legDetails	Leg Details	Required when representing additional legs on a Multi- Leg record. See <u>Table 133: Leg Details</u> below.	С

Table 133: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
17. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
17.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
17.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	С

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
17.n.4	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
17. <i>n</i> .5	side	Choice	The side of the leg.	R
17. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID
- Route Linkage Key: Event Date, senderIMID, destination, routedQuoteID

5.2.8.4. Multi-Leg Quote Received/Replace Event

The Multi-Leg Quote Received event is used to report Multi-Leg Option Quotes received by an Industry Member operating an RFQ platform and to update and replace an existing RFQ response on an RFQ platform.

For two-sided quote events, the *bidPrice*, *bidQty*, *askPrice* and *askQty* fields must be populated. For one-sided quote events, the price and quantity of the applicable side must be populated.

If the field *onlyOneQuoteFlag* is populated as 'true', any Multi-Leg Quote Received event offered by the same CATReporterIMID to the same destination in the same symbol will be considered cancelled and replaced by CAT. Modifications reflected using the *onlyOneQuoteFlag* method may maintain the same quote ID. However, if a quote is cancelled and a new quote is reported to CAT, the Multi-Leg Quote Received Event must not maintain the same quote ID as the quote that was cancelled. Modifications to a quote when the *onlyOneQuoteFlag* is populated as 'true' may alternatively be captured using the Quote Modified event.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders"

reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 134: Multi-Leg Quote Received Event Field Specifications

Multi-Leg Quote Received (MLQR)					
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MLQR	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R	
7	quoteID	Text (64)	The internal quote ID assigned to the quote by Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and optionID combination.	R	
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. Maybe required in future phases of CAT. See Section 0 for guidance.	0	
9	receivedQuoteID	Text (64)	The quote ID as received by the Industry Member, must match the <i>routedQuoteID</i> in the Routed Quote event created by the issuer of the quote.	R	
10	dupROIDCond	Boolean	Indicates when a Quote Received event maintains the original routedQuoteID.	R	
11	eventTimestamp	Timestamp	The date/time the quote was received by the Industry Member.	R	
12	receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the quote (the Industry Member reporting this Reportable Event). It must match the <i>destination</i> field on the Multi-Leg Routed Quote event reported by the routing entity.	R	
13	senderIMID	Industry Member ID	The IMID of the Industry Member providing the quote. This value must match the <i>senderIMID</i> in the New Quote event reported by the routing Industry Member. Not required when <i>senderType</i> is 'N' or 'S'.	С	
14	onlyOneQuoteFlag	Boolean	'true' if the Industry Member only allows one quote to be active per <i>symbol</i> at a time for the issue of the quote; false otherwise.	R	
15	bidPrice	Price	Net price being bid. May be positive, negative, or zero. This field represents a net price for all legs in the quote	С	

	Multi-Leg Quote Received (MLQR)					
Seq #	Field Name	Data Type	Description	Include Key		
			inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number			
16	bidQty	Whole Quantity	Quantity being bid. Must be populated with a value greater than '0' if the <i>bidPrice</i> field is populated with a value greater than '0'.	С		
17	askPrice	Price	Net price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number	C		
18	askQty	Whole Quantity	Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'.	С		
19	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multileg order.	R		
20	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R		
21	RFQFlag	Boolean	RFQ only field. Indicates if the CAT quote event reflects a response to an RFQ. Must be 'true' when RFQID field is populated.	R		
22	quotePriceType	Choice	Indicates how the net price was represented in the price field.	С		
23	senderType	Choice	Indicates the type of origin from which the quote is routed.	R		
24	validUntilDuration	Numeric (4,6)	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.	0		
25	legDetails	Leg Details	See Table 135: Leg Details below.	R		

Table 135: Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
25. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
25.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity	С

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
			Securities. Required if the leg being represented is an equity leg. Must be blank if optionID is populated.	
25.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	С
25.n.4	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
25.n.5	side	Choice	The side of the leg.	R
25.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Option Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID
- Option Quote Route Key: Event Date, senderIMID, receiverIMID, receivedQuoteID

5.2.8.5. Multi-Leg Quote Cancelled Event

If a RFQ Response (not immediately actionable) is cancelled that was sent by an Industry Member to an Industry Member operating an RFQ platform, then the sender of the RFQ Response must report Quote Cancelled events.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.

Table 136: Multi-Leg Quote Cancelled Event Field Specifications

	Multi-Leg Quote Cancelled (MLQC)						
Seq #	Field Name	Data Type	Description	Include Key			
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R			
2	errorROEID	Unsigned	Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'.	С			
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R			
4	type	Message Type	MLQC	R			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0			
6	quoteKeyDate	Timestamp	The quoteKeyDate of the Option Quote event which is being cancelled.	R			
7	quoteID	Text (64)	The <i>quoteID</i> of the Multi-Leg Quote event which is being cancelled.	R			
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. Maybe required in future phases of CAT. See Section 0 for guidance.	0			
9	eventTimestamp	Timestamp	The date/time the Option Quote was cancelled.	R			
10	retiredFieldPosition		Field position is retired and must remain blank.				
11	RFQID	Text (64)	For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow.	R			

Linkage Keys for this Reportable Event:

• Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID

5.2.8.6. Multi-Leg Quote Modified Event

Reported when a multi-leg quote is modified, and the venue only supports one active quote per *symbol* for an Industry Member at one time.

If a modification to a quote result in the generation of a new *quoteID* with a new Quote Key which replaces the prior *quoteID*, the *quoteID* field must capture the newly assigned *quoteID* and the prior quote

fields must reflect the quote that is being modified. If the quote has been modified more than once with a new *quoteID* assigned with each modification, the *priorQuoteID* must refer to quote*ID* of the immediately preceding modification which will not be the original Quote ID. If the *quoteID* remains the same during the modification, the *priorQuoteID* must remain blank.

This event is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See <u>Section 3.4: Responses to RFQs and Solicitation</u> for more information.

Table 137: Multi-Leg Quote Modified Event Field Specifications

	Multi-Leg Quote Modified (MLQM)					
Seq #	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R		
4	type	Message Type	MLQM	R		
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0		
6	quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned.	R		
7	quoteID	Text (64)	The internal quote ID assigned to the quote by the Industry Member. Must be unique within quoteKeyDate, CATReporterIMID, and symbol combination. When a new quote ID is not assigned, the quoteID of the Option Quote Modified (Cancel/Replace) event which is being modified.	R		
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. Maybe required in future phases of CAT. See Section 0 for guidance.	0		
9	priorQuoteKeyDate	Timestamp	If a new Quote ID has been assigned, this is the quoteKeyDate of the event being modified.	С		
10	priorQuoteID	Text (64)	If a new Quote Key has been assigned, this is the quoteID of the event being modified. When populated, the priorQuoteID must not be equal to the quoteID within the	С		

Field Name		Multi-Leg Quote Modified (MLQM)					
11 receiverIMID Industry Member ID Required when the modification is received from an Industry Member. The IMID of the Industry Member receiving the routed order modification.		Field Name	Data Type	-	Include Key		
Industry Member. The IMID of the Industry Member receiving the routed order modification.				record.			
Member ID	11	receiverIMID		Industry Member. The IMID of the Industry Member	С		
unique per combination of Event Date, optionID, senderIMID, and receiverIMID. 14 eventTimestamp Timestamp The date/time the quote was modified. 15 bidPrice Price Price Price being bid. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number and credits must be represented as a negative number. 16 bidQty Whole Quantity Price Price Price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number, and credits must be represented as a negative number, and credits must be represented as a negative number. 18 askQty Whole Quantity Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field.	12	senderIMID			С		
Price Pric	13	routedQuoteID	Text (64)	unique per combination of Event Date, optionID,	R		
This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number and credits must be represented as a negative number. 16 bidQty Whole Quantity being bid. Must be populated with a value greater than '0' if the bidPrice field is populated with a value greater than '0'. 17 askPrice Price Price Price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number and credits must be represented as a negative number and credits must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'. 18 askQty Whole Quantity being asked. Must be populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntiiDuration Real RFQ only field. The duration, expressed in seconds, from O	14	eventTimestamp	Timestamp	The date/time the quote was modified.	R		
inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. 16 bidQty Whole Quantity being bid. Must be populated with a value greater than '0' if the bidPrice field is populated with a value greater than '0'. 17 askPrice Price Price being asked. May be positive, negative, or zero. This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. 18 askQty Whole Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	15	bidPrice	Price	Price being bid. May be positive, negative, or zero.	С		
Quantity Comparison of the bidPrice field is populated with a value greater than '0'.				inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a			
This field represents a net price for all legs in the quote inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number. 18 askQty Whole Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	16	bidQty		than '0' if the bidPrice field is populated with a value	С		
inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number 18 askQty Whole Quantity being asked. Must be populated with a value greater than '0' if the askPrice field is populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	17	askPrice	Price	Price being asked. May be positive, negative, or zero.	С		
Quantity greater than '0' if the askPrice field is populated with a value greater than '0'. 19 numberOfLegs Whole Quantity Indicates the number of CAT reportable legs in the multileg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O				inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a			
Quantity leg quote. 20 RFQID Text (64) For quotes events representing a response to an RFQ (or other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	18	askQty		greater than '0' if the askPrice field is populated with a	С		
other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be populated for RFQ flow. 21 quotePriceType Choice Indicates how the net price was represented in the price field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	19	numberOfLegs			R		
field. 22 validUntilDuration Real RFQ only field. The duration, expressed in seconds, from O	20	RFQID	Text (64)	other similar form of solicitation), the ID assigned to the related RFQ or solicitation being responded to. Must be	R		
	21	quotePriceType	Choice	i i i i i i i i i i i i i i i i i i i	С		
Quantity which the time an electronic RFQ response was communicated is valid until.	22	validUntilDuration		which the time an electronic RFQ response was	0		
23 legDetails Leg Details See Table 138: Leg Details below.	23	legDetails	Leg Details	See Table 138: Leg Details below.	R		

Table 138: Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Quote Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
23. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
23.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if optionID is populated.	С
23.n.3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information. Required if the leg being represented is an option leg. Must be blank if symbol is populated.	0
23.n.4	reservedForFutureUse		Field is Reserved for Future Use and must remain blank.	
23. <i>n</i> .5	side	Choice	The side of the leg.	R
23.n.6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event

- Quote Key: quoteKeyDate, CATReporterIMID, quoteID, RFQID
- Prior Quote Key: priorQuoteKeyDate, CATReporterIMID, priorQuoteID

5.2.9. Multi-Leg Order Supplement Event

The Multi-Leg Order Supplement event may be used to supplement any Multi-Leg Order event. Multi-Leg Order Supplement events are considered as additions to a Multi-Leg Order event, not replacements or modifications. There is no limit to the number of Multi-Leg Order Supplement events that may supplement a single Multi-Leg Order event. When supplementing a Multi-Leg Order Route event, the Industry Member must identify the specific Multi-Leg Order Route event being supplemented by populating the Route Linkage Key fields.

The Multi-Leg Order Supplement event is used in the following scenarios.

- A Multi-Leg Order event has more legs than can be represented in an order event, additional legs must be represented in a Multi-Leg Order Supplement event.
- Aggregated Orders included in the aggregatedOrders field causes the Multi-Leg New Order event
 or Multi-Leg Order Modified event to exceed the maximum allowed message length, or when the
 orders being represented are not captured in the Multi-Leg New Order event or Multi-Leg Order
 Modified event. The aggregatedOrders field in the Multi-Leg Order Supplement event must
 contain the additional Aggregated Orders that were not captured in the original New Order event,
 or another Supplement event for the same order.
- An Industry Member receives an order for a new account and the new account number, on which the FDID is based, is not yet available for creation and reporting of the CAT new order event. If an FDID has not yet been created when an order has been received, the Industry Member must populate the firmDesignatedID field in its Multi-Leg New Order event with a value of 'PENDING'. Once the FDID becomes available, the Industry Member must report the actual FDID in the firmDesignatedID field in an Multi-Leg Order Supplement. Any Multi-Leg Order Supplement event with an FDID populated will not be considered late for CAT reporting purposes if it is received by T+3 @ 8:00 AM ET.
- A Multi-Leg Order Route event is rejected by the venue to which it was routed, and the Industry Member chooses to report the *routeRejectedFlag* in this separate Multi-Leg Order Supplement event. This event may not be used to supplement the *routeRejectedFlag* on a Multi-Leg Route Modified or Cancelled event, as CAT will not be able to determine that the record is not intended to supplement a Multi-Leg Order Route event. These supplement events will be accepted by CAT, but credit will not be provided to any exchange linkage errors on Multi-Leg Route Modified events, and Multi-Leg Route Cancelled events will not be considered supplemented. If an Industry Members must update the *routeRejectedFlag* on a Multi-Leg Route Modified or Cancelled event from 'false' to 'true', this must be done through a correction to the original submission using 'COR'.

Table 139: Multi-Leg Order Supplement Event Specifications

	Multi-Leg Order Supplement (MLOS)					
Seq#	Field Name	Data Type	Description	Include Key		
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R		
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С		
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm.	R		
			Formatted as <event date="">_<firm identifier="" roe=""></firm></event>			
			Must be unique for the Event Date and CAT Reporter			

	Multi-Leg Order Supplement (MLOS)						
Seq#	Field Name	Data Type	Description IMID.	Include Key			
4	type	Message Type	MLOS	R			
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0			
6	orderKeyDate	Timestamp	The orderKeyDate of the Multi-Leg order event this event supplements.	R			
7	orderID	Text (64)	The <i>orderID</i> of the Multi-Leg order event this event supplements.	R			
8	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs.	0			
9	eventTimestamp	Timestamp	See Section 0 for guidance. The date/time of Multi-Leg order event this event supplements. If manualFlag is 'true', timestamp must be reported to seconds. If manualFlag is 'false', timestamp must be reported to milliseconds or a finer increment up to nanoseconds.	R			
10	manualFlag	Boolean	Must be marked as 'true' if the Multi-Leg order event this event supplements was handled manually.	R			
11	aggregatedOrders	Aggregated Orders	The order ID of each customer/client order being combined when supplementing the aggregatedOrders on a Multi-Leg New Order or Multi-Leg Order Modified event. Refer to Appendix C for representative order linkage requirements.	С			
	ı ated Orders – Start h order being combir	ed <i>n</i> . the following	g values are required.				
11. <i>n</i> .1	orderID	Text (64)	orderID of the order being combined.	R			
11. <i>n</i> .2	orderKeyDate	Timestamp	orderKeyDate of the order being combined.	R			
11. <i>n</i> .3	quantity	Real Quantity	Required when a partial quantity of the order is being combined.	С			
11. <i>n</i> .4	originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different CATReporterIMID.	С			
Aggreg	Aggregated Orders – End						
12	firmDesignatedID	Text (40)	Required when reporting a supplement to an MLNO event that was reported prior to the FDID being available. Refer to Appendix G: Data Dictionary for definition and guidance for populating this field.	С			
13	senderIMID	Industry Member ID	When supplementing a Multi-Leg Order Route event, the senderIMID of the Multi-Leg Order Route event that this event supplements.	С			

Multi-Leg Order Supplement (MLOS)				
Seq#	Field Name	Data Type	Description	Include Key
			When destinationType is 'F', this value must equal the senderIMID on the Order Accepted event reported by the destination.	
			When destinationType is 'E', this value must equal the routingParty reported by the exchange on the Participant Complex Option Order Accepted event.	
14	destination	Industry Member ID / Exchange ID	When supplementing a Multi-Leg Order Route event, the <i>destination</i> of the Multi-Leg Order Route event that this event supplements.	С
			When destinationType is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and it must equal the receiverIMID field on the Order Accepted event reported by the destination Industry Member.	
			When destinationType is 'E', this value is the Exchange ID of the destination exchange, and it must equal the exchange field on the Complex Option Order Accepted event reported by the destination exchange.	
15	destinationType	Choice	When supplementing a Multi-Leg Order Route event, the <i>destinationType</i> of the Multi-Leg Order Route event that this event supplements. Indicates whether the destination of the route is an Industry Member, an exchange, or a foreign broker-dealer.	С
16	routedOrderID	Text (64)	When supplementing a Multi-Leg Order Route event, the ID assigned to the order by the Industry Member when routing the order to the destination. Must match the <i>routedOrderID</i> of the Order Route event that this event supplements.	С
			Required when destinationType is 'F' or 'E' and manualFlag is 'false'.	
17	session	Text (40)	When supplementing a Multi-Leg Order Route event, the session of the Multi-Leg Order Route event that this event supplements.	С
			Must only be populated when <i>destinationType</i> is 'E'. This must match the session ID reported in the Participant Complex Option Order Accepted event by the receiving exchange.	
18	routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.	R
19	legDetails	Leg Details	Required when representing additional legs on a Multi- Leg record. See <u>Table 140: Leg Details</u> below.	С

Table 140: Leg Details

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
19. <i>n</i> .1	legRefID	Text (64)	Unique identifier of the leg.	0
19. <i>n</i> .2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	С
19. <i>n</i> .3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	С
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
19. <i>n</i> .4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	С
19. <i>n</i> .5	side	Choice	The side of the leg.	R
19. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

- Order Key: orderKeyDate, CATReporterIMID, orderID
- Order Key: aggregatedOrders.orderKeyDate, CATReporterIMID, aggregatedOrders.orderID
- Route Linkage Key: Event Date, senderIMID, destination, routedOrderID

5.2.10. Multi-Leg Order Effective Event

The Multi-Leg Order Effective Event may be submitted in the Production Environment beginning on December 5, 2022.

The Multi-Leg Order Effective event is used to indicate that an order, or an underlying condition of an order, has become effective. This event is applicable to orders such as conditional (refer to <u>FAQ D26</u>), Stop, Stop Limit, Trailing Stop, Trailing Stop Limit, Stop on Quote, and Stop Limit on Quote orders. This event is NOT applicable to Stop Stock transactions. The Multi-Leg Order Effective event must be reported by the party that was holding the order at the time the order or condition became effective.

If the triggering event causing the order to become effective was a specific price, such as a stop price, the *triggerPrice* field must be populated in scenarios where the trigger price was not explicitly captured in the *handlingInstructions* field on the related new order (e.g., Stop Formula, Trailing Stop). In scenarios where the stop price was captured in prior CAT events associated with the order (e.g., as a Name/Value pair in *handlingInstructions* on MLNO and/or MLOA events), then the information may be optionally restated in the *triggerPrice* field on the Multi-Leg Order Effective event; however, it is not required to be reported again.

If a new order ID is generated when the order becomes effective, which replaces the prior order ID, the *orderID* field must capture the new order ID, and the *priorOrderID* field must reflect the order ID that is being replaced. If the *orderID* remains the same when the order becomes effective, the *priorOrderID* and *priorOrderKeyDate* must remain blank.

Table 141: Multi-Leg Order Effective Event Field Specifications

	Multi-Leg Order Effect (MLOE)				
Seq #	Field Name	Data Type	Description	Include Key	
1	actionType	Choice	Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error.	R	
2	errorROEID	Unsigned	Required when actionType is 'RPR'. Must be blank when actionType is 'NEW'.	С	
3	firmROEID	Text (64)	An identifier assigned to the record by the reporting firm. Formatted as <event date="">_<firm identifier="" roe=""> Must be unique for the Event Date and CAT Reporter IMID.</firm></event>	R	
4	type	Message Type	MLOE	R	
5	CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT. If populated, must equal the CATReporterIMID in the filename.	0	
6	orderKeyDate	Timestamp	When a new Order Key is assigned, the date and time the orderID was assigned. When a new Order Key is not assigned, the orderKeyDate of the CAT event which is being modified.	R	
7	orderID	Text (64)	When a new Order Key is assigned, the internal order ID assigned to the order by the Industry Member. Must be unique within same date and <i>CATReporterIMID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of the Order Modified (Cancel/Replace) event which is being modified.	R	
8	priorOrderKeyDate	Timestamp	If a new Order Key has been assigned, this is the orderKeyDate of the event being modified.	С	
9	priorOrderID	Text (64)	If a new Order Key has been assigned, this is the <i>orderID</i> of the event being modified. When populated, the	С	

	Multi-Leg Order Effect (MLOE)					
Seq #	Field Name	Data Type	Description	Include Key		
			priorOrderID must not be equal to the orderID within the record.			
10	underlying	Symbol	The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance.	0		
11	eventTimestamp	Timestamp	The date/time the order or underlying condition became effective.	R		
12	price	Price	The net price of the multi-leg order at a net debit/credit. May be positive, negative, or zero. This field represents a net price for all legs in the order inclusive of ratio and side, and must specify whether the price is a debit or credit. Debits must be represented as a positive number, and credits must be represented as a negative number.	C		
			Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'.			
13	quantity	Real Quantity	The number of units of the multi-leg order.	R		
14	minQty	Whole Quantity	The minimum quantity of units to be executed.	С		
15	orderType	Choice	The type of order being submitted.	R		
16	timeInForce	Name/Value Pairs	The Time in Force for the order.	R		
17	tradingSession	Choice	The trading session(s) during which an order is eligible to trade.	R		
18	numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multileg order.	R		
19	priceType	Choice	Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'.	С		
20	triggerPrice	Price	The price at which the order became effective. Required in scenarios where the trigger price was not explicitly captured in the <i>handlingInstructions</i> field on the related new order (e.g., Stop Formula, Trailing Stop)	С		
21	legDetails	Leg Details	See <u>Table 142: Leg Details</u> below.	R		

Table 142: Leg Details

The Leg Details associated with field: legDetails The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event. | Data | Type | Description | Description | Description | Compared to the leg. | Description | Descr

Leg Details

The Leg Details associated with field: legDetails

The number legs that may be represented in each record is limited by file size. Legs that cannot be represented due to file size constraints must be represented in a Multi-Leg Order Supplement event.

Seq#	Field Name	Data Type	Description	Include Key
21.n.2	symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. Required if the leg being represented is an equity leg. Must be blank if <i>optionID</i> is populated.	O
21. <i>n</i> .3	optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended before the OSI symbol elements. See the Option Symbols section for more information.	O
			Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated.	
21.n.4	openCloseIndicator	Choice	Indicates whether the action taken (buy or sell) will open a new position or will close an existing position in the order originator's account. Required when the exchange's rules require a leg to be marked as open or close upon entry into the exchange. Must be blank if symbol is populated.	O
21. <i>n</i> .5	side	Choice	The side of the leg.	R
21. <i>n</i> .6	legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	R

Linkage Keys for this Reportable Event:

• Order Key: orderKeyDate, CATReporterIMID, orderID

• Prior Order Key: priorOrderKeyDate, CATReporterIMID, priorOrderID

6. Submission Process

This section contains information pertaining to CAT data and file formats, CAT submissions (including a general data flow overview), network and transport options, CAT access and reporting hours.

6.1. File Submissions and Data Formats

CAT submissions must include Data Files, which have a prescribed naming convention and are supported in JSON and CSV formats. Effective July 24, 2023, the Metadata File submission associated with the Data File will no longer be supported. If a Metadata file is submitted on or after July 24, 2023, it will be rejected at the File Acknowledgement stage of processing.

6.1.1. File Submission Names

• Data Files must be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<File Generation
Date>_[<Group>_]<File Kind>_<File Number>[.File Instruction].<Format
Extension>.<Compression Extension>
```

For example: SUBID_MYID_20170101_FileGroup1_OrderEvents_000123.csv.bz2

The values assigned within a file name include:

Table 143: Elements of a File Submission Name

Field Name	Data Type	Description	Include Key
CAT Submitter ID	Unsigned	CAT Reporting Agent that submitted the file to CAT.	R
CAT Reporter IMID	Alphanumeric (7)	The SRO-assigned identifier of the firm to which the data within the file belongs. Case sensitive.	R
File Generation Date	Date	The date the file was generated or reported. Used to guarantee uniqueness of a file across dates. Date must be less than or equal to System Date. Future dates are not acceptable.	R
Group	Alphanumeric (20)	Reporter defined string to guarantee uniqueness of a file across dates. Filenames associated with web submission directly entered into the CAT Reporter Portal will be assigned the value 'catweb'.	0
File Kind	Alphanumeric (20)	Set to 'OrderEvents'. Case sensitive.	R
File Number	Unsigned	Sequence number of the file, 6-digits long, left-padded with zeros. The File Number is not required to be populated in submission order.	R
File Instruction	Alphanumeric (4)	Applicable to Delete Files. Set equal to '.DEL' for a Delete File Instruction. Case sensitive.	С

Field Name	Data Type	Description	Include Key
Format Extension	Alphanumeric (4)	Represents the format of the data submission. JSON formatted submissions must be 'json', and CSV submissions must be populated with 'csv'. Case sensitive.	R
Compression Extension	Alphanumeric (3)	Applicable to Data Files. Set to 'bz2'. Case sensitive.	R

The base file name is the full file name *excluding* the Format Extension and Compression Extension. For example:

File Name: SUBID MYID 20170101 FileGroup1 OrderEvents 000123.csv.bz2

File Base Name: SUBID_MYID_20170101_FileGroup1_OrderEvents_000123

The base file name must be globally unique among all other Data Files. For example, the following Data Files are duplicates:

Table 144: File Name / Base File Name Example

Data File Name	Data File Base Name
SUBID_MYID_20170101_Group1_OrderEvents_ 000123.csv.bz2	SUBID_MYID_20170101_Group1_OrderEvents_ 000123
SUBID_MYID_20170101_Group1_OrderEvents_ 000123.json.bz2	SUBID_MYID_20170101_Group1_OrderEvents_ 000123

6.1.2. Submission Formats

CAT supports the submission of Data Files in JSON and CSV formats.

6.1.2.1. General Submission Rules

The following rules apply to the submission of Data Files in either CSV or JSON format:

- 1. CAT submissions must only include Data Files, which are processed independently.
- 2. Each line in a file must contain exactly one complete record.
- 3. The total maximum length of a line is 8190 bytes.
- 4. Non-printable characters and whitespace are bytes that are included in the character count when validating a record has NOT exceeded the maximum length.

6.1.2.2. JSON Format Submission Rules

The following rules apply to the submission of Data Files in JSON format only:

- The CAT Processor supports standard JSON syntax for each record or syntax as specified in this
 document.
- 2. Backslash '\' is a reserved printable character in JSON and must be escaped in order to be used in strings by inserting a backslash prior to it within the string. For example: routedOrderID = 1234\ABCD must be reported to CAT as "routedOrderID":"1234\ABCD". If a backslash is not escaped, it will be omitted from the string. For example, if "routedOrderID":"1234\ABCD" is reported to CAT, it will be stored as routedOrderID = 1234ABCD.
- 3. Data Files serve as top-level containers for each object. Each object is a normal JSON object, separated with a new-line (ASCII decimal 10, hex 0A).
 - a. Data within the object must not include new-lines.
 - b. Conditional and optional fields without a value must be omitted.
 - c. Each line within a Data File must contain exactly one complete record. The following example is a CAT event in the required submission format. The record is delivered in a single line with a new-line character at the end:

```
{"actionType":"RPR", "errorROEID":12345678, "firmROEID":"20170801_firmROE012345", "ty pe":"MENO", "orderKeyDate":"20170801T143031.000000", "orderID":"012345", "symbol":"XY Z", "eventTimestamp":"20170801T143031.123456", "manualFlag":false, "deptType":"O", "si de":"B", "price":10.01, "quantity":500, "orderType":"LMT", "timeInForce":{"DAY":201708 01}, "tradingSession":"REG", "custDspIntrFlag":false, "firmDesignatedID":"PROP456", "a ccountHolderType":"O", "negotiatedTradeFlag":false}
```

JSON Data File examples in this document are shown on multiple lines for readability only.

6.1.2.3. CSV Format Submission Rules

The following rules apply to the submission of Data Files in CSV format only:

- 1. The sequence of fields is fixed; the position of each field is relative to the beginning of its associated record. The format of every file and record must be in the sequence described within this document.
- Each included field, except for the last field in a record, must be terminated by a delimiter including instances when the field is null or blank, is the maximum length, or is greyed out or Reserved for Future Use.
 - a. A record must include every specified field up to, and including, the last required field per the event definition.
 - b. When a field that is positioned after the last required field is populated, every field position after the last required field up to and including the last populated field must be delimited.

For example:

Event ABC is defined as having three fields:

Allowable CSV Formats:

Seq	Include Key	1, 2, 3,
1	R	1, 2, 3
2	R	1, 2,
3	С	1, 2

Event ABC	Event ABC is updated to include a new conditional field:		Allowable CSV Formats:
Seq	Include Key		1, 2, 3, 4,
1	R		1, 2, 3, 4
2	R		1, 2, 3,
3	С		1, 2, 3
4	С		1, 2,
	'	ı	1, 2

vent ABC is updated to include a new required field:		′ Formats:
Include Key	1, 2, 3, 4, 5,	
R	1, 2, 3, 4, 5	
R		
С		
С		
R		
	R R C C	Include Key 1, 2, 3, 4, 5, R R C C

- 3. No field in the record can contain any character used as a delimiter.
- 4. The last field in a record is not required to be terminated by a field delimiter. The field will still be considered to be acceptable if the delimiter is included.
- 5. The field delimiter is a comma (ASCII decimal 44, hex 2C).
- 6. Other delimiters defined for usage include the '|' (pipe), '@' (at sign) and ' " ' (double quotes). Use of '|' and '@' have been specified for reporting complex data types where a field contains multiple values. Refer to Section 2.5: Data Types.
- 7. Each record must end with an end-of-record marker (ASCII LF or CR/LF).
- 8. Optional (O) and Conditional fields (C) are omitted by only including the delimiter.
- 9. Required (R) fields must contain an appropriate value and be terminated by the delimiter.
- 10. Values do not need to fill the entire data type length of the field; Values may not exceed the data type length.
- 11. Leading zeros will be removed during processing from fields that are a Data Type of Numeric. Leading zeros will NOT be removed from fields that are any other Data Type, such as Text or Alphanumeric. Refer to Section 2.5: Data Types.
- 12. Leading and trailing blanks will be removed during processing from fields that are a Data Type of Text or Alphanumeric; blanks populated *within* such fields will NOT be removed. Leading and trailing

blanks will NOT be removed from fields that are any other Data Type, such as Numeric. Refer to Section 2.5: Data Types.

6.1.3. Metadata File Submission

Effective July 24, 2023, the Metadata File submission associated with the Data File will no longer be supported. If a Metadata file is submitted on or after July 24, 2023, it will be rejected at the File Acknowledgement stage of processing.

6.1.4. Data File Submission

The following rules apply to the submission of Data Files:

- All Data Files sent from the CAT Reporter (or CAT Reporting Agent for the CAT Reporter) must be compressed using BZip2. The associated compression extension is "bz2".
- Files must be individually compressed and submitted. Compressed files may not be bundled into a single container file.
- 3. All events within the file must be for the same CAT Reporter IMID. However, Industry Member Identifiers populated in the *senderIMID*, *receiverIMID* and *destination* fields may be different.
- 4. Files submitted through SFTP are limited to a maximum uncompressed size of 100GB.
- 5. Larger file submissions are recommended to reduce number of files for Reporters to transfer and manage and to allow feedback to be returned consistently and faster.
- Files submitted through the CAT Reporter Portal are limited to a maximum uncompressed size of 1GB, with a record limit of 100,000 records per file. Files with more than 100,000 records will be rejected.
- Schema files will be maintained by the Plan Processor and will be versioned as the Technical Specifications change.
- 8. Files may contain events for any Event Date that is less than or equal to the date on which the file is processed.
- 9. Events within a file may be in any sequence.
- Files may contain original submissions, firm-initiated corrections, CAT error corrections and record delete instructions.
- 11. Files are recommended to contain data for the same CAT Trading Day to ensure the usage of the File Delete Instruction. Refer to Section 7.6.4. This is not a requirement.
- 12. Empty Data Files will be accepted.
- 13. Data Files are processed independently. Effective July 24, 2023, the Metadata File submission associated with the Data File will no longer be supported.
- 14. The processing date of all submissions will be assigned based on the received timestamp of the Data File. If a Data File is received after T+1 @ 8:00 AM ET, the submissions will be considered late.

6.1.4.1. Data File JSON Example

```
"actionType": "NEW",
  "firmROEID": "20170901_ROE1234567",
  "type": "MEOJ",
  "orderKeyDate": "20170901T120102.123456",
  "eventTimestamp": "20170901T120102.123456",
  "manualFlag": false,
  "symbol": "XYZ",
  "orderID": "T12346",
  "priorOrderID": "T12345",
  "priorOrderKeyDate":"20170901T120102.000000",
  "initiator": "C",
  "quantity": 1100,
  "minQty": 100,
  "leavesQty": 100
```

6.1.4.2. Data File CSV Example

```
LINE 1 NEW,,20170901_ROE1234567,MEOJ,,20170901T120201.123456,T12346,XYZ,T1 2345,20170901T120102.0000000,,20170901T120102.123456,false,,C,,1100, 100,100,,,,,,,,,
```

6.1.5. Schema

An <u>Industry Member Schema</u> file that details the structure and expected contents of every message type is available on the CAT public website. The schema file will be maintained by the Plan Processor and will be versioned as the message specifications change.

6.1.5.1. Schema Version

Schema changes will be updated when changes to the CAT Reporting Technical Specifications for Industry Members occur that impact the schema. The following rules apply:

- 1. The Schema Version is assigned to a File Kind. The events within this Technical Specifications are assigned to File Kind 'OrderEvents'.
- 2. The Schema Version is formatted as <Major>.<Minor>.<Patch>. All digits must be represented.
 - Major updated when a change occurs that impacts all or a significant portion of Industry
 Member CAT Reporters. In such cases, the schema is not backward compatible and will be
 specified accordingly.
 - Minor updated when a change occurs that does not require coding changes for all Industry Member CAT Reporters. In such cases, the schema is backward compatible with support for previous version(s) as specified.

- Patch updated when a change occurs that does not require coding changes for any Industry Member CAT Reporters.
- Revision not part of the Schema Version. Used to represent updates to the Industry Member Technical Specifications which do not impact the Schema definition. Revision added to the end of the Schema Version as <Schema Version> r<#>.
- 3. Records contained in a Data File must be formatted as per the Schema Version outlined in these Technical Specifications based on the applicable Environment.

6.1.5.2. Schema Definition

The schema file is a JSON format file that represents the following:

1. **Data Types** – CAT defined data types containing the following elements:

Element	Description
dataType	Data Type (e.g., Price) as defined in <u>Table 3: Data Types</u> .
JSONDataType	JSON standard data type to be used to submit data of this type. The JSON standard data types used in this schema are BOOLEAN, STRING, NUMBER, ARRAY and OBJECT. Timestamp data type has two possible representations, so the JSONDataType is an array of choices.
maxLength	Maximum length of the string submission. Applicable to text and alphanumeric types only.
scale	Number of digits after the decimal point. Applicable to numeric types only.
precision	Number of digits in a number. Applicable to numeric types only.

2. **Event Definitions** – Field specifications for events defined in <u>Table 15</u>: Equity Events and <u>Table 60</u>: <u>Summary of Simple Option Events</u>. Each field specification object contains the following elements:

Element	Description	
name	Field Name set equal to Message Type for each event being specified.	
dataType	Data Type. Fields noted Reserved for Future Use are specified with datatype Text (0).	
JSONDataType	JSON standard data type to be used to submit data of this type.	
required	Indicates whether the field is "Required", "Conditional", or "Optional". Fields applicable to ATSs are marked "Conditional".	
position	The applicable CSV position of the field.	

- 3. **Choices** For Choice data types, the list of possible values.
- 4. **Name/Value Pairs** Field specifications for Name/Value Pair fields containing the following elements:

|--|

Name	Name Field Name. Case sensitive.	
dataType	Data Type or an array of Data Types.	
JSONDataType	The JSON standard data type or an array or JSON standard data types.	
Required	Indicates whether the field is "Required", "Conditional", or "Optional".	

6.1.5.3. Example

The following is an abbreviated example of a schema containing part of the equity Child Order event.

```
"eventDefinitions": [{
                 "eventName": "MECO",
                 "fields": [{
                             "name": "actionType",
                             "dataType": "Choice",
                             "JSONDataType": "STRING",
                             "required": "Required",
                             "position": "1"
                       }, {
                             "name": "errorROEID",
                             "dataType": "Unsigned",
                             "JSONDataType": "NUMBER",
                             "required": "Conditional",
                             "position": "2"
                       }, {
                             "name": "firmROEID",
                             "dataType": "Text (64)",
                             "JSONDataType": "STRING",
                             "required": "Required",
                             "position": "3"
                       },
                             "name": "nbboSource",
                             "dataType": "Choice",
                             "JSONDataType": "STRING",
                             "required": "Conditional",
                             "position": "30"
                       }, {
                             "name": "nbboTimestamp",
                             "dataType": "Timestamp",
                             "JSONDataType": ["STRING", "NUMBER"],
                             "required": "Conditional",
                             "position": "31"
                       }
                 ]
           },
```

6.2. Connectivity

Connectivity to CAT will be through at least one of the following methods:

- Private Line provided by a Managed Network Service Provider (MNSP)
- AWS PrivateLink
- CAT Secure Reporting Gateway (SRG) Reporter Portal

Both the Private Line and AWS PrivateLink connectivity methods will support the CAT File Transfer service, which provides access for automated, machine-to-machine file submissions, acknowledgements, rejections, and corrections using the Secure File Transfer Protocol (SFTP) service as well as to the CAT Reporter Portal for interactive reporting through web-based forms or manual file uploads.

The CAT Secure Reporting Gateway (SRG) connectivity method will only support the CAT Report Portal. The SRG requires multi-factor authentication (MFA) to establish a secure, encrypted session before accessing the CAT Reporter Portal. The SRG requires the use of modern browsers supporting HTML5 and TLS (Transport Layer Security). No client software installation is required.

The combinations of Connectivity and Interface Methods are summarized below.

Table 145: Connectivity Methods and Supported CAT Interfaces Methods

Connectivity Methods	Interface Methods		
	CAT File Transfer	CAT Reporter Portal	
Private Line provided by MNSP	Υ	Υ	
AWS PrivateLink	Υ	Υ	
CAT Secure Reporting Gateway (SRG)	N	Y	

For a detailed description of the CAT Connectivity Methods, including instructions for establishing access and connectivity to the CAT system, refer to the <u>FINRA CAT Connectivity Supplement for Industry Members</u>.

6.3. CAT Interface Methods

The interface methods available to Industry Members and CAT Reporting Agents to submit data and retrieve reporting feedback include CAT File Transfer and the CAT Reporter Portal. For a detailed description of the CAT Interface Methods, including instructions for establishing access and connectivity to the CAT system, refer to the FINRA CAT Connectivity Supplement for Industry Members.

The following identifies the types of CAT information with the respective interface methods available for each:

Table 146: CAT Data and Feedback Interface Methods

CAT Data Submission and Feedback	Category	SFTP	CAT Reporter Portal
Submission of CAT Events	Submission	✓	✓
Resubmission of Rejected Files/Records, Corrections and Deletions	Submission	✓	√
Interactive CAT Reportable Event Entry	Submission		✓
File Status Retrieval	Feedback	✓	✓
Reporting Statistics	Feedback		✓
Error Feedback	Feedback	✓	✓
Corrections Feedback	Feedback		✓
System Status and Announcements	Feedback		✓
Account Maintenance	Administration		✓
Establishment of Reporting Relationships and ATS Order Types	Administration		√

6.3.1. CAT File Transfer

The CAT File Transfer method is an automated, machine-to-machine interface utilizing the Secure File Transfer Protocol ("SFTP") for file submissions, acknowledgements, rejections and corrections. SFTP enables Industry Members and CAT Reporting Agents to create machine-to-machine connections to securely transmit data and retrieve data from FINRA CAT.

The following is the SFTP directory structure that will be made available in the submitter's home directory. Files associated with data submissions and associated feedback will be uploaded in SFTP directories as per the following table.

Table 147: SFTP Directories

SFTP Directory	Usage
/submitterID/cat/upload	SFTP submissions uploaded by Submitters of Data Files. CAT will move files from this directory for further processing.
/submitterID/cat/feedback	Meta Feedback files associated with each processing state.
/submitterID/cat/errors	Error Data Feedback Files containing errors generated during Ingestion and Linkage Discovery.

The following rules apply:

- 1. Processing is initiated when a file appears in the /submitterID/cat/upload directory.
- 2. CAT will remove files from the upload directory as soon as each file upload is complete.

3. The Submitter must not delete files from the /submitterID/cat/upload directory.

6.3.2. CAT Reporter Portal

The CAT Reporter Portal is a web interface utilizing secure encryption protocols (HTTPS/TLS) and multifactor authentication (MFA). The CAT Reporter Portal will facilitate data submissions using the following methods:

- Manual upload of Data Files up to 1GB in size and limited to 100,000 records meeting all requirements as specified in <u>Section 6: Submission Process</u>.
- Data entry for original submissions, repairs for CAT-identified errors, firm-initiated corrections and deletion instructions. These entries will be converted to Data Files by the portal; Data Files will be available for view and download via the Portal for a specified time period.

6.4. CAT Reporting Hours

6.4.1. Submission of CAT Events

Pursuant to SEC Rule 613, the CAT NMS Plan requires Industry Members to record order, quote, fulfillment and trade events. Real-time reporting to CAT is not required. Data may be bulk uploaded at the end of the Trading Day, or may be submitted in batches with associated uploads throughout the day. All Reportable Events for a Trading Day are required to be reported to CAT by 8:00 AM ET on the next Trading Day.

Trading Day for Industry Members is defined as:

- Start: immediately after 4:15:00 PM and no fractions of a second Eastern Time on one trade date
- End: exactly 4:15:00 PM and no fraction of a second Eastern Time on the next trade date (T=Trading Day, a defined term)^{16,17}

The Trading Day is used to determine the reporting deadline of CAT events, including when all error repairs and firm initiated corrections are due. Weekends or any day that all equities or options national securities exchanges are closed are not considered a Trading Day.

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¹⁶ Note that the Trading Day definition for Participants is different. It starts on 1 millisecond from 12:00AM of T, and ends at 12:00AM of T+1.

¹⁷ A Trading Day which is also an early close will end 15 minutes after market close.

CAT accepts submissions (via SFTP and the CAT Reporter Portal) 24 hours per day, 6 days per week beginning at 12:01 AM ET on Monday and ending at 11:59 PM ET on Saturday. Events that occurred during a particular CAT Trading Day may be reported anytime between the time the event occurred and the reporting deadline, which is 8:00 AM ET on the next Trading Day. Reports received after the deadline will be considered late.

The table below provides examples of the reporting deadline.

Table 148: Reporting Deadline Examples

Event Occurs	Holiday	Report Due to CAT (T+1 @ 8:00 AM ET)
Monday 14:20 PM ET	N/A	Tuesday 8:00 AM ET
Monday 23:40 PM ET	N/A	Wednesday 8:00 AM ET
Friday 11:00 AM ET	N/A	Monday 8:00 AM ET
Friday 16:02 PM ET	N/A	Monday 8:00 AM ET
Friday 16:02 PM ET	The Following Monday	Tuesday 8:00 AM ET
Friday 14:00 PM ET	Market Close on the Event Date 13:00 PM ET	Tuesday 8:00 AM ET
Wednesday 15:00 PM ET	Thursday, Friday is half day	Friday 8:00 AM ET
Saturday 11:15 AM ET	N/A	Tuesday 8:00 AM ET
Saturday 11:15 AM ET	The Following Monday	Wednesday 8:00 AM ET
Monday 10:00 AM ET (holiday)	On the Event Date	Wednesday 8:00 AM ET

6.4.2. Deadline of Repair for Errors Identified by CAT

Errors identified by CAT will be provided to Industry Members. Once available, repairs can be made immediately. All errors that require repair must be repaired prior to **T+3** @ **8:00 AM ET** (CAT Trading Day of event + three Trading Days). Repairs received after the repair deadline will be considered late.

Table 149: Repair Window Examples

Event Occurs	Holiday	Initial Report Due (T+1 @ 8:00 AM ET)	Repair Due (T+3 @ 8:00 AM ET)
Monday 14:20 PM ET	N/A	Tuesday 8:00 AM ET	Thursday 8:00 AM ET
Monday 23:40 PM ET	N/A	Wednesday 8:00 AM ET	Friday 8:00 AM ET
Friday 11:00 AM ET	N/A	Monday 8:00 AM ET	Wednesday 8:00 AM ET
Friday 16:02 PM ET	N/A	Monday 8:00 AM ET	Wednesday 8:00 AM ET
Friday 16:02 PM ET	Next Monday	Tuesday 8:00 AM ET	Thursday 8:00 AM ET
Wednesday 15:00 PM ET	Thursday, Friday is half day	Friday 8:00 AM ET	Tuesday 8:00 AM ET

Event Occurs	Holiday	Initial Report Due (T+1 @ 8:00 AM ET)	Repair Due (T+3 @ 8:00 AM ET)
Saturday 11:15 AM ET	N/A	Tuesday 8:00 AM ET	Thursday 8:00 AM ET
Saturday 11:15 AM ET	The Following Monday	Wednesday 8:00 AM ET	Friday 8:00 AM ET
Monday 10:00 AM ET (holiday)	On the Event Date	Wednesday 8:00 AM ET	Friday 8:00 AM ET

6.4.3. Deadline for Firm Initiated Corrections and Deletions

CAT specifications allow for Industry Members to correct and delete events that did not produce an error during processing. All such corrections must be submitted within the same correction deadline as described in Section 6.4.2.

6.5. Security

6.5.1. Encryption (In-transit)

TLS-based encryption, version 1.2 minimum, is required for connection to the Reporter Portal (whether accessed via private line or the SRG) and to the Security Reporter Gateway itself.

For SFTP, in addition to the fact that the SFTP service is only accessible via private line, traffic will be encrypted by virtue of the intrinsic encryption capabilities of SFTP. AES256 will be supported for SFTP; support for other encryption protocols is under evaluation.

6.5.2. Encryption (At-rest)

The CAT system will use native AWS encryption features to encrypt data upon receipt. No action is required by the Industry Member.

6.5.3. Authentication

Two-factor authentication will be required for access to the Reporter Portal. The first factor will be username and password which will require periodic rotation.

The second factor will to be via push notification to an off-the-shelf application installed on a mobile device provided by the user. The user will be required to install the application to their mobile device through their mobile operating system's application store and then complete a registration process on the Reporter Portal or SRG. There is no cost to the Reporter or the user for this mobile application.

The SFTP service similarly requires that two conditions be met to access the interface. The first factor is authentication via username and password. The second is the use of a defined IP source address that is established during initial onboarding. The SFTP system implements an IP whitelist that prevents access from any system not on the whitelist.

More detailed information related to Security is described in the <u>FINRA CAT Connectivity Supplement for Industry Members</u> available at https://www.catnmsplan.com/registration/.

7. Feedback and Corrections

CAT provides feedback associated with CAT submissions for CAT Reporters and Submitters including:

- **File Status:** available via SFTP and the CAT Reporter Portal, indicates the acceptance or associated errors with a Data File submission.
- Reporting Statistics: available via the CAT Reporter Portal, daily summary statistics
 representing reporting activity and errors for prior submissions and CAT Trading days. Error Rate
 is also included.
- Error Feedback: available via SFTP and the CAT Reporter Portal, errors found during processing will be made available including Rejections, Out of Sequence, and Unlinked events.
- Corrections Feedback: available via the CAT Reporter Portal, information is provided for the repair status of all Corrections. When an error has been corrected, the updated status will be reflected.
- System Status and Announcements: available via the CAT Reporter Portal, the status of CAT
 processing will be made available with a distinction for instances when a processing delay or
 issue is occurring. Additionally, announcements related to system maintenance and upcoming
 changes will be presented.

This section describes the procedures for obtaining feedback and making corrections/deletions associated with feedback of errors. Additionally this section describes the requirement for making correction/deletions for accepted data for which there was no feedback.

7.1. File and Error Feedback

Feedback files with associated errors are generated at different stages of processing and returned to the CAT Reporter and Submitter.

Feedback for the File Acknowledgement and File Integrity phases will be provided via a Meta Feedback File, indicating success or indicating failure and all associated errors.

Feedback for Ingestion and Linkage Discovery will be provided via:

- A Meta Feedback File, indicating success or failure.
- One or more Error Data Feedback Files, indicating all error for and the original content of each record with one or more associated errors, preformatted for resubmission to CAT.

Errors identified during each processing stage will be provided in the following order with the associated Feedback and Error Correction availability:

Table 150: Feedback and Error Correction Availability

Seq	Processing Stage	Feedback	Anticipated Delivery	Delivery No Later Than
1	File Acknowledgement	File Submission Error	Within 10 minutes of File Submission	1 hour of File Submission
2	File Integrity	File Integrity Error	Within 30 minutes of File Acknowledgement Feedback	2 hours of File Acknowledgement Feedback
3	Data Ingestion	Data Errors including syntax and semantic errors	Within 1 hour of File Integrity Feedback	4 hours of File Integrity Feedback
		Corrections Feedback for Ingestion Errors	Within 1 hour of File Integrity Feedback	4 hours of File Integrity Feedback
4	Linkage Discovery	Linkage errors including duplicates, out of sequence and linkage errors	T+1 @ noon	T+1 @ noon
		Corrections Feedback for Linkage Errors	Processing Date of Correction Submission + 1 @ noon	Processing Date of Correction Submission + 1 @ noon

7.1.1. Feedback Generation

Feedback associated with all processing stages will be made available via SFTP and/or the CAT Reporter Portal as described in Table 146: CAT Data and Feedback Interface Methods.

For feedback files made available via SFTP, the following rules apply:

- 1. The format of feedback files will match the format of the original file submission.
- 2. Meta Feedback Files will be accessible under the cat/feedback directory in the Submitter's home directory on the Feedback SFTP server.
- 3. Error Data Feedback Files will be accessible under the cat/errors directory in the Submitter's home directory on the Feedback SFTP server.
- 4. Feedback for data submitted by a CAT Reporting Agent on behalf of a CAT Reporter will be accessible under the CAT Reporter's home directory on the Feedback SFTP server if the CAT Reporter has an SFTP account.
- 5. If a file is rejected, it will not proceed to the next processing stage.
- Error Data Feedback Files generated during Data Ingestion and Linkage Discovery will be compressed. Each line in the file will contain exactly one record ending with a new-line character.
- 7. The minimum retention time for feedback files on the SFTP server is 10 calendar days. After that time, they may be removed from the server. Feedback will be available via the CAT Reporter Portal for at least 90 days.

7.1.2. Feedback File Names

 Meta Feedback Files created by CAT during Acknowledgement for files submitted with a malformed file name will be named using the following format:

```
<original File Name>.ack.error
```

Example: SUBID_MYID_20170101_000001.ack.error

Meta Feedback Files created by CAT during Acknowledgement (for files submitted with a well-formed file name), File Integrity and Data Ingestion will be named using the following format:

```
<original File Base Name>[.<Type>][.<File
Instruction>].<Stage>[_<Feedback File Number>].<Format Extension>
```

Example: SUBID_MYID_20170101_Group1_OrderEvents_000123.integrity.json

Table 151: Elements of a Meta Feedback File Name Generated during Acknowledgement, File
Integrity and Data Ingestion

Field Name	Data Type	Description	Include Key
Original File Base Name		Base Name of the Original File Submission. <cat id="" submitter="">_<cat imid="" reporter="">_<file date="" generation="">_[<group>_]<file kind="">_<file number=""></file></file></group></file></cat></cat>	R
File Instruction	Alphanumeric (4)	Applicable to Delete Files. Set equal to '.DEL' for feedback associated with a Delete File Instruction.	С
Stage	Alphanumeric (9)	Processing stage associated with the Feedback including: ack - Acknowledgement integrity - File Integrity ingestion - Data Ingestion	R
Feedback File Number	Unsigned	Sequence number of the file, 6-digits long, left-padded with zeros. Will be populated as needed to prevent duplicate Feedback file names for instances when multiple feedback files are generated for the same File Submission. The File Number is not required to be populated in submission order.	С
Format Extension	Alphanumeric (4)	Represents the feedback format; Set equal to the feedback format of the original submission. JSON formatted feedback will be set to 'json', and CSV formatted feedback will be populated with 'csv'.	R

Meta Feedback Files created by CAT during Linkage Discovery will be named using the following format:

<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation Date>_<File
Kind>.linkage[<Feedback File Number>].<Format Extension>

For example: SUBID_MYID_20170101_OrderEvents.linkage_000001.json

Table 152: Elements of a Meta Feedback File Name Generated During Linkage Discovery

Field Name	Data Type	Description	Include Key
CAT Submitter ID	Unsigned	CAT Reporting Agent that submitted the data to CAT.	R
CAT Reporter IMID	Alphanumeric (7)	The SRO-assigned identifier of the firm to which the data within the file belongs. For Named Errors, the identifier named on the record reported by CAT Reporter whose event is unlinked.	R
CAT File Generation Date	Date	The date the file was generated by CAT.	R
File Kind	Alphanumeric (20)	Set to 'OrderEvents'.	R
Туре		Not applicable for Linkage Discovery Feedback files	
Stage	Alphanumeric (9)	Set to 'LINKAGE' for Linkage Feedback. Set to 'LINKAGE_OUTSTANDING' for Outstanding Linkage Errors Feedback.	R
Feedback File Number	Unsigned	Sequence number of the file, 6-digits long, left-padded with zeros. Will be populated as needed to prevent duplicate Feedback file names for instances when multiple feedback files are generated for Linkage errors. The File Number is not required to be populated in submission order.	С
Format Extension	Alphanumeric (4)	Represents the feedback format; Set equal to the feedback format of the original submission. JSON formatted feedback will be set to 'json', and CSV formatted feedback will be populated with 'csv'.	R

When no Linkage Errors are found in Linkage Discovery, the Meta Feedback File will be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation
Date> OrderEvents.linkage[ <Feedback File Number>].success
```

Example: SUBID_MYID_20170101_Group1_OrderEvents_000123.ingestion.success

Error Data Feedback Files of Ingestion Errors created by CAT during File Ingestion will be named using the following format:

```
<original File Base Name>.ingestion.error[_<Feedback File
Number>].<Format Extension>.bz2
```

Example: SUBID_MYID_20170101_Group1_OrderEvents_000123.ingestion.error.json.bz2

Error Data Feedback Files of Linkage Errors created by CAT during Linkage Discovery will be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation Date>_<File Kind>.linkage.error[ <Feedback File Number>].<Format Extension>.bz2
```

Example: SUBID_MYID_20170101_OrderEvents.linkage.error_000001.json.bz2

Meta Feedback Files for *outstanding* Linkage Errors created by CAT during Linkage Discovery will be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation Date>_<File Kind>.linkage_outstanding[_<Feedback File Number>].<Format Extension>
```

Example: SUBID_MYID_20170101_OrderEvents.linkage_outstanding_000001.json

When Linkage Errors were previously found, and there are no outstanding Linkage Errors found in Linkage Discovery, the Error Date Feedback File will be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation
Date> OrderEvents.linkage outstanding[ <Feedback File Number>].success
```

Example: SUBID_MYID_20170101_OrderEvents.linkage_outstanding_000001.success

Error Data Feedback Files of *outstanding* Linkage Errors created by CAT during Linkage Discovery will be named using the following format:

```
<CAT Submitter ID>_<CAT Reporter IMID>_<CAT File Generation Date>_<File Kind>.linkage_outstanding.error[_<Feedback File Number>].<Format Extension>.bz2
```

Example: SUBID MYID 20170101 OrderEvents.linkage outstanding.error 000001.json.bz2

7.2. File Acknowledgement

The File Acknowledgement processing stage is where files are received and processing is initiated. Every file submission is acknowledged, and file names are validated.

Effective July 24, 2023, the Metadata File submission associated with the Data File will no longer be supported. If a Metadata file is submitted on or after July 24, 2023, it will be rejected at the File Acknowledgement stage of processing.

The following rules apply to File Acknowledgment:

- 1. Acknowledgement feedback will be generated for all file submissions, including Data Files.
- The Plan Processor will remove files from the upload directory as soon as each file upload is complete.
- 3. The Submitter must not delete files from the /submitterID/cat/upload directory.
- 4. File acknowledgement feedback files will include the file extension .ack
- 5. File acknowledgement errors, including when a File Name is malformed, will return the original filename with the .ack.error extension. The file will be empty.

7.2.1. File Acknowledgement Feedback Definition

Table 153: File Acknowledgement Meta Feedback File

Seq	Name	Data Type (Length)	Description
1	feedbackVersion	Text (10)	The schema version of the feedback file.
2	submitter	Unsigned	The CAT Submitter ID from the file name.
3	reporter	CAT Reporter IMID	The CAT Reporter IMID from the file name.
4	fileGenerationDate	Date	The file generation date from the file name.
5	fileName	Alphanumeric (90)	File name as submitted for which feedback is being provided.
6	receiptTimestamp	Timestamp	Date and time the file was received. Timestamp will be in STRING format.
7	stage	Alphanumeric (20)	Set to 'FILE_ACKNOWLEDGEMENT'
8	stageCompleteTimestamp	Timestamp	Date and time when the file completed the acknowledgement stage. Timestamp will be in STRING format.
9	status	Alphanumeric (7)	Set to 'Success'.
10	severity	Alphanumeric (7)	Not applicable for the acknowledgement stage.
11	code	Unsigned	Not applicable for the acknowledgement stage.
12	errorFileName	Alphanumeric (90)	Not applicable for the acknowledgement stage.
13	errorCount	Unsigned	Not applicable for the acknowledgement stage
14	errorDetails	Multi- Dimensional Array	Not applicable for the acknowledgement stage.
Linkag	je Error Details – Meta File Block Star	t	

Seq	Name	Data Type (Length)	Description
For eac	h Linkage Type n , the following values wil	l be included:	
14. <i>n</i> .1	linkageType	Alphanumeric (20)	Not applicable for the acknowledgement stage.
14. <i>n</i> .2	errorTypeCount	Unsigned	
Linkage	Linkage Error Details – Meta File Block End		
15	doneForDay	Boolean	Not applicable for the acknowledgement stage.
16	retiredFieldPosition	Text (0)	This field has been retired and must remain blank.

7.2.2. JSON Examples of File Acknowledgement

Data File Submission Acknowledgement Error (JSON)		
Original Submission File Name	SUBID_MYID_20170307000123.meta.json.bz2	
Meta Feedback File Name	SUBID_MYID_20170307000123.meta.ack.error	
Meta Feedback File Contents	empty	

Data File Submission Acknowle	edgement Success (JSON)
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.json.bz2
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ack.json
Meta Feedback File Contents	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>

Data File Acknowledgement Error (JSON)		
Original Submission File Name	SUBID_MYID_20170307000123.json.bz2	
Meta Feedback File Name	SUBID_MYID_20170307000123.ack.error	
Meta Feedback File Contents	empty	

7.2.3. CSV Examples of File Acknowledgement

Data File Submission Acknowledgement Success (CSV)		
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.csv.bz2	
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ack.csv	
Meta Feedback File Contents	LINE 1 4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089, Success,,,,,,,	

Data File Submission Acknowled	Data File Submission Acknowledgement Error (CSV)		
Original Submission File Name	SUBID_MYID_20170307000123.csv.bz2		
Meta Feedback File Name	SUBID_MYID_20170307000123.csv.error		
Meta Feedback File Contents	empty		

7.3. File Integrity

During the File Integrity processing stage, file names are validated for uniqueness. Filenames are validated to ensure they are readable, formatted as expected.

The following rules apply to File Integrity:

- All Data Files with a Success status generated during File Acknowledgement will enter the File Integrity processing stage.
- 2. File Integrity feedback file will include the file extension .integrity.
- 3. Data File names which duplicate prior submissions accepted during File Integrity will be rejected.
- 4. Data Files which include invalid values in the file name will be rejected.
- 5. The CAT Submitter ID of the Data File must be equal to the Submitter ID of the submitter that sent the files (as determined from SFTP or CAT Reporter Portal username).
- 6. If the CAT Submitter is reporting on behalf of the CAT Reporter IMID, a Reporting Relationship must be effective.

7.3.1. File Integrity Feedback Definition

Table 154: File Integrity Meta Feedback File

Seq	Name	Data Type (Length)	Description
1	feedbackVersion	Text (10)	The schema version of the feedback file.
2	submitter	Unsigned	The CAT Submitter ID from the file name.
3	reporter	CAT Reporter IMID	The CAT Reporter IMID from the file name.

Seq	Name	Data Type (Length)	Description
4	fileGenerationDate	Date	The file generation date from the file name.
5	fileName	Alphanumeric (90)	File name as submitted for which feedback is being provided.
6	receiptTimestamp	Timestamp	Date and time the file was received. Timestamp will be in STRING format.
7	stage	Alphanumeric (20)	Set to 'FILE_INTEGRITY'
8	stageCompleteTimestamp	Timestamp	Date and time when the file completed the integrity stage. Timestamp will be in STRING format.
9	status	Alphanumeric (7)	Populated with 'Success' or 'Failure' as per the processing outcome. Set to 'Failure' when errors and/or warnings are identified.
10	severity	Alphanumeric (7)	Populated when the Status is 'Failure'. If status is 'Failure', severity will be set to 'Error' or 'Warning'. If one or more errors found, will be set to 'Error'. Otherwise will be set to 'Warning'.
11	code	Array	Error codes indicating reason for File Failure.
12	errorFileName	Alphanumeric (90)	Not applicable for the integrity stage.
13	errorCount	Unsigned	Not applicable for the integrity stage.
14	errorDetails	Multi-Dimensional Array	Not applicable for the integrity stage.
_	Linkage Error Details – Meta Block Start For each Linkage Type <i>n</i> , the following values will be included:		
14. <i>n</i> .1	linkageType	Alphanumeric (20)	Not applicable for the integrity stage.
14. <i>n</i> .2	errorTypeCount	Unsigned	Not applicable to the integrity stage.
Linkage	Linkage Error Details – Meta Block End		
15	doneForDay	Boolean	Not applicable for the integrity stage.
16	retiredFieldPosition	Text (0)	This field has been retired and must remain blank.

7.3.2. JSON Examples for File Integrity Feedback

Data File Integrity Success (JSON)	
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.json.bz2
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.integrity.json
Meta Feedback File Contents	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089",</pre>

```
Data File Integrity Error (JSON)
Original Submission File
                              SUBID MYID 20170307 OrderEvents 000123.json.bz2
Name
Meta Feedback File Name
                              SUBID MYID 20170307 OrderEvents 000123.integrity.json
Meta Feedback File Contents
                                "feedbackVersion": "4.1.0",
                                "submitter": "SUBID",
                                "reporter": "MYID",
                                "fileGenerationDate": 20170307,
                                "fileName":
                              "SUBID MYID 20170307 OrderEvents 000123.json.bz2",
                                "receiptTimestamp": "20170307T153552.000001089",
                                "stage": "FILE_INTEGRITY",
                                "stageCompleteTimestamp": "20170307T154152.000001089",
                                "status": "Failure",
                                "severity": "Error",
                                "code": 1104
```

7.3.3. CSV Examples for File Integrity Feedback

Data File Integrity Success (CSV)		
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.csv.bz2	
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.integrity.csv	
Meta Feedback File Contents	LINE 1 4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_INTEGRITY, 20170307T154152.000001089, Success,,,,,,	

Data File Integrity Error (CSV)			
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.csv.bz2		
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.integrity.csv		
Meta Feedback File Contents	LINE 1 4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_INTEGRITY, 20170307T154152.000001089, Failure, Error, 1104,,,,,		

7.4. Data Ingestion

During Data Ingestion, events within the Data File are validated. Validations to ensure correct syntax and semantics associated with record length, field length, data type, non-null and reference data checks are

performed. Validations are initiated by the Action Type and Event Type of every record contained in the file. Ingestion feedback will be provided with reference to the file in which the data was transmitted.

During the ingestion phase, each record will be checked for proper formatting (JSON field names and values, CSV values in correct positions) and data contents.

The following rules apply for Data Ingestion:

- 1. File Ingestion feedback will be generated for every Data File for which a Success status was generated during File Integrity. The feedback will consist of a Meta Feedback File and an Error Data Feedback File when errors are found.
- 2. Meta Feedback Files for Ingestion will include the file extension .ingestion.
- 3. Error Data Feedback Files for Ingestion will include the file extension .ingestion.error.
- 4. Data Files which are not readable will be rejected. Records within the file will not be processed. The file must be resubmitted. The provided Meta Feedback File will include the error code associated with the file error (Error Code 2153).
- 5. Any record within a Data File determined to be malformed or otherwise invalid will be rejected.
- 6. When a record is readable and can be parsed, Ingestion validations will occur for every field within the record.
- 7. One or more errors may be found within a record.
- 8. Records with one or more associated errors found during Ingestion will be rejected and will NOT participate in Linkage Discovery.
- 9. Record rejections will be provided in feedback with the generation of a Meta Feedback File and an Error Data Feedback File that includes the error records.
- 10. Ingestion error feedback will provide up to eight (8) error codes per record. If more than eight error are identified for a record, the eighth error code will inform the user that there are additional errors associated with the record that were not included in the feedback file.
- 11. When an error record that was originally submitted in CSV format is readable and parseable, the error feedback will be returned from the 3rd position.
- 12. When an error record that was originally submitted in CSV format is not readable, the original record submitted to CAT will be returned.
- 13. When an error is found for events originally submitted in JSON format, the original record submitted to CAT will be returned and will be formatted as a string using JSON rules.
- 14. Records that are not rejected during Data Ingestion will participate in Linkage Discovery.

7.4.1. Ingestion Feedback Definition

Table 155: Ingestion Meta Feedback File

Seq	Name	Data Type (Length)	Description		
1	feedbackVersion	Text (10)	The schema version of the feedback file.		
2	submitter	Unsigned	The CAT Submitter ID from the file name.		
3	reporter	CAT Reporter IMID	The CAT Reporter IMID from the file name.		
4	fileGenerationDate	Date	The file generation date from the file name.		
5	fileName	Alphanumeric (90)	File name as submitted.		
6	receiptTimestamp	Timestamp	Date and time the file was received. Timestamp will be in STRING format.		
7	stage	Alphanumeric (20)	Set to 'INGESTION'		
8	stageCompleteTimestamp	Timestamp	Date and time when the file completed the ingestion stage. Timestamp will be in STRING format.		
9	status	Alphanumeric (7)	Populated with 'Success' or 'Failure' as per the processing outcome. Set to 'Failure' when data errors and/or warnings are identified.		
10	severity	Alphanumeric (7)	Populated when the Status is 'Failure'. If status is 'Failure', severity will be set to 'Error'.		
11	code	Unsigned	Error code indicating reason for File Failure. Populated when the Data File is rejected.		
12	errorFileName	Alphanumeric (90)	File name associated with the feedback Metadata File generated by CAT. Populated if errors were found associated with individual records contained in the Data File.		
13	errorCount	Unsigned	Number of Error and Warning records in the file; If no errors found, will be set to 0.		
14	errorDetails	Multi-Dimensional Array	Not applicable for the ingestion stage.		
•	Linkage Error Details – Meta Block Start For each Linkage Type <i>n</i> , the following values will be included:				
14. <i>n</i> .1	linkageType	Alphanumeric (20)	Not applicable for the ingestion stage.		
14. <i>n</i> .2	errorTypeCount	Unsigned			
Linkage	Linkage Error Details – Meta Block End				
15	doneForDay	Boolean	Not applicable for the ingestion stage.		
16	retiredFieldPosition	Text (0)	This field has been retired and must remain blank.		
17	totalRecordsCount	Unsigned	The total number of records in the Data File.		

Table 156: Ingestion Error Data Feedback File

Seq	Name	Data Type (Length)	Description	
1	errorCode	Array	The CAT Error Codes associated with the <i>firmROEID</i> representing up to 8 error codes.	
			If the record has more than 8 errors, 7 error codes will be presented. The 8 th error code will be set to "2999" which indicates the event has more than 8 errors.	
			Refer to <u>Appendix E</u> for the definition of all Error Codes.	
2	actionType	Alphanumeric (3)	Set to 'RPR'.	
3	errorROEID	Numeric (20)	Identifier for the record that has errors. Populated with a CAT-assigned identifier.	
4	errorRecord	Unspecified	CSV Format: Original Record, containing all fields of the original record excluding <i>actionType</i> and <i>errorROEID</i> .	
			JSON Format: Original Record, containing all fields of the original record. The original record will be escaped with JSON rules and returned as a string.	
			Note: the length of the original record will be a max of 8190 characters. The <i>errorRecord</i> will be the original record that was submitted plus additional characters for JSON formats as specified.	

7.4.2. JSON Examples for Data Ingestion Feedback

Data File Ingestion Success (JSON)	
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.json.bz2
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ingestion.json
Meta Feedback File Contents	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "INGESTION", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success", "errorCount": 0 "totalRecordsCount": 6543 }</pre>

Data File Ingestion Error (JS	Data File Ingestion Error (JSON)		
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.json.bz2		
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ingestion.json		
Meta Feedback File	{ "feedbackVersion": "4.1.0",		

```
Data File Ingestion Error (JSON)
Contents
                          "submitter": "SUBID",
                         "reporter": "MYID",
                         "fileGenerationDate": 20170307,
                         "fileName":
                        "SUBID MYID 20170307_OrderEvents_000123.json.bz2",
                         "receiptTimestamp": "20170307T153552.000001089",
                         "stage": "INGESTION",
                         "stageCompleteTimestamp": "20170307T154152.000001089",
                         "status": "Failure",
                         "severity": "Error",
                         "code": "2001",
                         "errorFileName":
                       "SUBID MYID 20170307 OrderEvents 000123.ingestion.error.json.
                         "errorCount": 2,
                         "totalRecordsCount": 6543
                       SUBID_MYID_20170307_OrderEvents_000123.ingestion.error.json.b
Error Data Feedback
File Name
                        {"errorCode":[2001,2002],"actionType":"RPR","errorROEID":1234
Error Data Feedback
                       56, "errorRecord": "{\"actionType\":\"NEW\", \"firmROEID\":\"20
File Contents
                       170901_ROE1234567\",\"type\":\"MEOJ\",\"orderKeyDate\":\"2017
                       0901T120102.123456\",\"eventTimestamp\":\"20170901T120102.123
                       456\",\"manualFlag\":false,\"symbol\":\"XYZ\",\"orderID\":\"T
                       12346\",\"priorOrderID\":\"T12345\",\"priorOrderKeyDate\":\"2
                       0170901T120102.000000\",\"initiator\":\"C\",\"quantity\":1000
                       ,\"minQty\":100,\"leavesQty\":100}"}
                       {"errorCode":[2003],"actionType":"RPR","errorROEID":144477,"e
                       rrorRecord": "{\"actionType\":\"NEW\",\"firmROEID\":\"2017090
                       1 ROE1230011\",\"type\":\"MEOJ\",\"orderKeyDate\":\"20170901T
                       120162.123456\",\"eventTimestamp\":\"20170901T120162.123456\"
                       , \"manualFlag\":false, \"symbol\":\"XYZ\", \"orderID\":\"T12355
                       \",\"priorOrderID\":\"T12344\",\"priorOrderKeyDate\":\"201709
                       01T120092.000000\",\"initiator\":\"C\",\"quantity\":1100,\"mi
                       nQty\":100,\"leavesQty\":100}"}
```

7.4.3. CSV Examples for File Ingestion Feedback

Data File Ingestion Success (CSV)		
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.csv.bz2	
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ingestion.csv	
Meta Feedback File Contents	LINE 1 4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, INGESTION, 20170307T154152.000001089, Success,,,,0,,,,	

Data File Ingestion Error (CSV)	
Original Submission File Name	SUBID_MYID_20170307_OrderEvents_000123.csv.bz2
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ingestion.csv

Data File Ingestion Error (CSV)		
Meta Feedback File Contents	LINE 1	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, INGESTION, 20170307T15 4152.000001089, Success,,, SUBID_MYID_20170307_OrderEvents_000123 .ingestion.error.csv.bz2,2,,,,6543
Error Data Feedback File Name	SUBID_MYID_20170307_OrderEvents_000123.ingestion.error.c sv	
Error Data Feedback File Contents	LINE 1 LINE 2	2001 2002,RPR,123456, <error record=""> 2003,RPR,123457,<error record=""></error></error>

7.5. Linkage Discovery

During Linkage Discovery, events are compared with other events to perform duplicate checks, out of sequence checks and linkages among events having the same Linkage Keys. The linkage types performed by CAT are defined in <u>Section 2.6</u>.

Linkage Discovery processing will occur in the following order:

Table 157: Steps in Linkage Discovery

Seq	Linkage Discovery Step	Feedback	
1	Full Duplicate Checks	When duplicates are found, one record is kept and all others are rejected	
2	Order Key, Trade Key, Quote Key and Fulfillment Key Duplicate Checks	When an Event Key is duplicated, all events having the same key are rejected	
3	Intrafirm Linkage, Out of Sequence, and FDID Validation	Events within a firm that do not match or are found to be out of sequence result in an unlinked event. Events are sequenced to the maximum timestamp granularity provided in the event.	
		Additionally, events where the FDID provided does not exist in the CAIS data or is not valid on the specified date will result in an FDID validation error. Events receiving an FDID validation error will participate in all linkage processing.	
		For RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed),), which are not required to be reported to CAT until August 1, 2026, Intrafirm Linkage validations are enabled beginning July 29, 2024.	
	Interfirm Linkage	Events routed/received between firms that do not match result in an unlinked event, including Route Key duplicate checks. For RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed),), which are not required to be reported to CAT until August 1, 2026, Interfirm Linkage errors validations will be suppressed in scenarios where a quote event is routed to, or received from, Industry Members.	
	Exchange Linkage	Events routed to an Exchange that do not match result in an unlinked event, including Route Key duplicate checks	
	Trade Linkage	Trade events which name a TRF/ORF/ADF record that do not match result in an	

Seq	Linkage Discovery Step	Feedback	
		unlinked event	

The following rules apply for Linkage Discovery:

- 1. Linkage Discovery processing will be performed for all events which pass Ingestion.
- 2. Linkage feedback files will include the file extension .linkage.
- 3. Linkage feedback error files will include the file extension .linkage.error.
- 4. Linkage feedback error summary files will include the file extension .linkage.error.summary.
- 5. A linkage feedback error summary file is provided when one or more FDID validation errors exist for a processing date.
- 6. The *CATReporterIMID* and all fields included on the original submission, except for the *firmROEID* participate in full duplicate checking.
- 7. When full duplicates are identified, one event will be kept and all other events which fully duplicate the record will be rejected when submitted within the Processing Window. Full duplicates submitted outside the Processing Window will be marked late.
- 8. When Event Key duplicates are identified, all events having the duplicated key will result in rejections for all records with the same key.
- 9. Events that passed Event Key duplicate validations participate in the process which generates linkages.
- 10. When Linkage Key duplicates are identified, all events having the duplicated Linkage Key will result in in unlinked errors for all records with the same key.
- 11. When linkages are expected but do not occur, a linkage error will be generated reflecting an unlinked event.
- 12. In cases when linkage did not occur between venues, unlinked feedback will be generated for the CAT Reporter whose record did not link and the CAT Reporter that was named. Separate error codes will be assigned.
- 13. One or more linkage errors may be found within a record.
- 14. Named errors are considered repaired when the unlinked event is repaired.
- 15. Linkage feedback for unlinked errors will be provided in the submission format of the unlinked event, including named unlinked errors.
- 16. Linkage feedback for named unlinked errors will be provided in the format of the original submission unless the CAT Reporter specifies a preference for named unlinked errors that is different than the unlinked errors on the CAT Reporter Portal.
- 17. Linkage Discovery Error Data Feedback Files will be limited to an uncompressed file size of 1GB.

- 18. Multiple Unlinked Error Data Feedback Files will be provided to ensure the file size maximum is not exceeded. The File Feedback number will be incremented to ensure the feedback file name is not duplicated.
- 19. When there are no Linkage Discovery Errors, an empty file will be returned with a .success extension.
- 20. Linkage Feedback Files <u>are named by CAT</u>. These feedback files represent Linkage Feedback across all submissions for the CATReporterIMID/Submitter combination. The Feedback is not associated with specific submission file(s). The file name includes the Processing Date for which the Unlinked Feedback represents.
- 21. Linkage Feedback Files present linkage fields as they were ingested, not as they were processed for linkage. For example, leading and trailing zeros on a *routedOrderID* or *session* will be reflected in Linkage Feedback Files as they were ingested although they are removed for linkage processing.

7.5.1. Linkage Discovery Feedback Definitions

Linkage Discovery Errors include unlinked events reported by the CAT Reporter, and unlinked events on which the CAT Reporter was named. For named linkage errors, a subset of fields will be provided. Refer to CAT Alert 2019-04 for additional information on named linkage errors.

There are six types of Unlinked Data errors including:

Unlinked Type	Feedback Definition
Unlinked error reported by the CAT Reporter for all event types	Table 159: Linkage Error – Event Reported by CAT Reporter
Named on an Unlinked Industry Member Order Event	Table 160: Linkage Errors – Named on Unlinked Industry Member Order Event
Named on an Unlinked Industry Member Quote Event	<u>Table 161: Linkage Errors – Named on Unlinked Industry</u> <u>Member Quote Event</u>
Named on an Unlinked Exchange Event/Display- Only Facility Equity BBO Event	Table 162: Linkage Errors – Named on Unlinked Exchange Event/Display-Only Facility Equity BBO Event
Named on an Unlinked Trade Report	Table 163: Linkage Errors – Named on Unlinked Trade Report
Linkage Error Summary	Table 164: Linkage Error Summary File

7.5.1.1. Linkage Discovery Meta Feedback File Definition

A Meta Feedback File is provided to deliver the status and outcome of validations and linkages that occurred during the Linkage Discovery processing stage. There is only one type of Meta Feedback File, which will include the feedback meta information for all linkage errors, including unlinked events reported by the CAT Reporter and unlinked events on which the CAT Reporter was named.

Table 158: Linkage Discovery Meta Feedback File

Seq	Name	Data Type (Length)	Description
1	feedbackVersion	Text (10)	The schema version of the feedback file.
2	submitter	Unsigned	The Submitter ID associated with the original submission of the events.
3	reporter	CAT Reporter IMID	The CAT Reporter IMID associated with the events.
4	fileGenerationDate	Date	The CAT Processing Date on which the feedback file was generated.
			Since multiple file generation dates can participate in a single CAT Processing Date, the file generation date in the feedback file need not equal the file generation date in the actual submissions file.
5	fileName	Alphanumeric (90)	Not applicable for the linkage stage.
6	receiptTimestamp	Timestamp	Not applicable for the linkage stage.
7	stage	Alphanumeric (20)	Set to 'LINKAGE'
8	stageCompleteTimestamp	Timestamp	For Linkage Error File: Date and time when the file completed the linkage stage. Timestamp will be in STRING format.
			For Outstanding Linkage Error File: Date and time when repair processing is complete. Timestamp will be in STRING format.
9	status	Alphanumeric (7)	For Linkage Error File: Populated with 'Success' or 'Failure' as per the processing outcome.
			For Outstanding Linkage Error File: Populated with 'Failure'.
10	severity	Alphanumeric (7)	Not applicable for Linkage Discovery.
11	code	Unsigned	Not applicable for Linkage Discovery.
12	errorFileName	Alphanumeric (90)	File name associated with the feedback Metadata File generated by CAT.
13	errorCount	Unsigned	For Linkage Error File: Total number of Error and Warning records for the CAT Reporter IMID and CAT Submitter ID on the CAT Processing Date.
			For Outstanding Linkage Error File: Total number of Error records for the CAT Reporter IMID and CAT Submitter ID on the CAT Processing Date that remain unrepaired for the prior three trade dates.
14	errorDetails	Multi-Dimensional Array	Linkage feedback information associated with each linkage type. The list will include all linkage types with the error record count associated with each linkage type.
14	errorDetails		each linkage type. The list linkage types with the error

Seq	Name	Data Type (Length)	Description
			for information that will be included.
_	e Error Details – Meta Block Start h Linkage Type <i>n</i> , the following value	es will be included:	
14. <i>n</i> .1	linkageType	Alphanumeric (20)	The Linkage Type. Values include: Intrafirm (includes OOS and FDID validation errors) Interfirm Exchange Trade
14. <i>n</i> .2	errorTypeCount	Unsigned	Number of Errors and Warnings for each linkage type.
Linkage	Error Details – Meta Block End		
15	doneForDay	Boolean	Used to indicate the last Metadata File for Linkage Discovery feedback is delivered. doneForDay=true when the last file is delivered.
16	retiredFieldPosition	Text (0)	Not applicable for Linkage Discovery.

7.5.1.2. Linkage Error Feedback: Event Reported by CAT Reporter

<u>Table 159: Linkage Error – Event Reported by CAT Reporter</u> specifies the feedback format of unlinked errors reported by the CAT Reporter. All fields of the original event will be provided in the feedback. The feedback format of the errors Data File listed in <u>Table</u> through <u>Table 163</u> applies to both Linkage Error File as well as Outstanding Linkage Error File.

Table 159: Linkage Error - Event Reported by CAT Reporter

Seq	Name	Data Type (Length)	Description
1	errorCode	Array	The CAT Error Codes associated with the <i>firmROEID</i> representing up to 2 error codes. Refer to Appendix E for the definition of all Error Codes.
2	actionType	Alphanumeric (3)	Set to 'RPR'.
3	errorROEID	Numeric (20)	For unlinked events associated with the CAT Reporter, populated with a CAT assigned identifier.
4	errorRecord	Text (8190)	CSV Format: Original Record, containing all fields of the original record excluding <i>actionType</i> and <i>errorROEID</i> . JSON Format: Original Record, containing all fields of the original record. For unlinked events associated with the CAT Reporter, the
			original record will be populated with all fields of the original submission excluding actionType and errorROEID.
			Note: the length of the original record will be a max of 8190 characters and will be represented by the original record that was

Seq	Name	Data Type (Length)	Description
			submitted.
5	linkageKey	Text (200)	The CAT derived linkage key used to attempt linkage on the event.
			See <u>Section 7.5.1.7</u> for additional information on how the linkageKey is provided.

7.5.1.3. Linkage Error Feedback: Named on Unlinked Industry Member Order Event

An unlinked Industry member order event occurs when any of the following linkages fail:

- Industry Member routes an order to another Industry Member or Exchange
- Industry Member receives an order from another Industry Member or Exchange

Refer to <u>CAT Alert 2019-04</u> for additional information on named linkage errors.

Table 160: Linkage Errors - Named on Unlinked Industry Member Order Event

Seq	Name	Data Type (Length)	Description
1	errorCode	Array	The CAT Error Codes associated with the Named Error. One errorCode will be assigned. Refer to Appendix E for the definition of Trade Linkage Named Error Codes.
2	errorType	Message Type	Named Error Type; Set equal to ERRIM
3	errorROEID	Numeric (20)	Not applicable for Named Errors.
4	firmROEID	Text (64)	firmROEID of the unlinked event as assigned by the CAT Reporter.
5	type	Message Type	Event Type of the unlinked event.
6	symbol	Symbol	Symbol when populated on the unlinked event.
7	optionID	Text (22)	OptionID when populated on the unlinked event.
8	eventTimestamp	Timestamp	Timestamp as populated on the unlinked event.
9	side	Choice	Side as populated on the unlinked event.
10	price	Price	Price as populated on the unlinked event.
11	quantity	Real Quantity	Quantity as populated on the unlinked event.
12	senderIMID	Industry Member ID / Exchange ID	senderIMID when populated on the unlinked event.
13	receiverIMID	Industry Member ID	receiverIMID when populated on the unlinked event.
14	destination	Industry Member ID / Exchange ID	destination when populated on the unlinked event.
15	routedOrderID	Text (64)	The routedOrderID as populated on the unlinked event.
16	linkageKey	Text (200)	The CAT derived linkage key used to attempt linkage on the event.
			See <u>Section 7.5.1.7</u> for additional information on how the linkageKey is provided.

Seq	Name	Data Type (Length)	Description
17	reservedForFutureUse		Field is Reserved for Future Use.

7.5.1.4. Linkage Error Feedback: Named on Unlinked Industry Member Quote Event

An unlinked Industry member quote event occurs when any of the following linkages fail:

- Industry Member sends a quote to an Inter-dealer Quotation System
- Inter-dealer Quotation System receives a quote from an Industry Member
- Industry Member sends an electronic RFQ response to an RFQ platform
- RFQ platform receives an electronic RFQ response from an Industry Member

Refer to <u>CAT Alert 2019-04</u> for additional information on named linkage errors.

Table 161: Linkage Errors - Named on Unlinked Industry Member Quote Event

Seq	Name	Data Type (Length)	Description
1	errorCode	Array	The CAT Error Codes associated with the Named Error. One errorCode will be assigned. Refer to Appendix E for the definition of all Error Codes.
2	errorType	Message Type	Named Error Type; Set equal to ERRQT
3	errorROEID	Numeric (20)	Not applicable for Named Errors.
4	firmROEID	Text(64)	firmROEID of the unlinked event as assigned by the CAT Reporter.
5	type	Message Type	Event Type of the unlinked event.
6	symbol / optionID	Symbol	Symbol or optionID when populated on the unlinked event.
7	eventTimestamp	Timestamp	Timestamp as populated on the unlinked event.
8	bidPrice	Price	bidPrice as populated on the unlinked event.
9	bidQty	Whole Quantity	bidQty as populated on the unlinked event.
10	askPrice	Price	askPrice as populated on the unlinked event.
11	askQty	Whole Quantity	askQty as populated on the unlinked event.
12	senderIMID	Industry Member ID	senderIMID as populated on the unlinked event.
13	receiverIMID	Industry Member ID	receiverIMID when populated on the unlinked event.
14	destination	Industry Member ID	destination when populated on the unlinked event.
15	routedQuoteID	Text (64)	routedQuoteID as populated on the unlinked event.
16	receivedQuoteID	Text (64)	receivedQuoteID as populated on the unlinked event.
17	linkageKey	Text (200)	The CAT derived linkage key used to attempt linkage on the event. See Section 7.5.1.7 for additional information on how the linkageKey is provided.
18	RFQID	Text (64)	RFQID as populated on the unlinked event

7.5.1.5. Linkage Error Feedback: Named on Unlinked Exchange Event

An unlinked Exchange Event occurs when any of the following linkages fail:

- Exchange receives an order from an Industry Member
- Exchange routes an order to an Industry Member

An unlinked Display-Only Facility Equity BBO event occurs when any of the following linkages fail:

• Display-Only Facility receives a quote from an Industry Member

Refer to <u>CAT Alert 2019-04</u> for additional information on named linkage errors.

Table 162: Linkage Errors – Named on Unlinked Exchange Event/Display-Only Facility Equity

BBO Event

Seq	Name	Data Type (Length)	Description
1	errorCode	Array	The CAT Error Codes associated with the Named Error. One errorCode will be assigned. Refer to Appendix E for the definition of Exchange Linkage Named Error Codes.
2	errorType	Message Type	Named Error Type; Set equal to ERREX This <i>errorType</i> is also applicable to Display-Only Facility Feedback.
3	errorROEID	Numeric (20)	Not applicable for Named Errors.
4	recordID	Text (64)	Unique identifier of the unlinked exchange event as assigned by the Plan Participant
5	type	Message Type	Event Type of the unlinked event.
6	symbol	Symbol	Symbol when populated on the unlinked event.
7	optionID	Text (22)	OptionID when populated on the unlinked event.
8	eventTimestamp	Timestamp	Timestamp as populated on the unlinked event.
9	side	Choice	Side as populated on the unlinked event.
10	price	Price	Price as populated on the unlinked event.
11	quantity	Real Quantity	Quantity as populated on the unlinked event.
12	routingParty	Text (20)	RoutingParty as populated on the unlinked event. Populated to represent the identifier used to enter the order into the exchange.
13	exchange	Exchange ID	Plan Participant Exchange Identifier.
14	routedOrderID	Text (64)	The routedOrderID when populated on the unlinked event. Populated using identifier from Exchange Data that includes the Order Identifier for the respective exchange used as part of the linkage key.
15	session	Text (40)	Session as populated on the unlinked event. Populated using identifier from Exchange Data that includes the Session Identifier for the respective exchange used as part of the linkage key.

Seq	Name	Data Type (Length)	Description
16	capacity	Choice	Capacity as populated on the unlinked event.
17	linkageKey	Text (200)	The CAT derived linkage key used to attempt linkage on the event. See Section 7.5.1.7 for additional information on how the linkageKey is provided.
18	reservedForFutureUse		Field is Reserved for Future Use.

7.5.1.6. Linkage Error Feedback: Named on Unlinked Trade Report

An unlinked Trade Report occurs when the following linkage fails:

• Transaction reporting system receives a trade report from an Industry Member

Refer to <u>CAT Alert 2019-04</u> for additional information on named linkage errors.

Table 163: Linkage Errors - Named on Unlinked Trade Report

Seq	Name	Data Type (Length)	Description
1	errorCode	Array	The CAT Error Codes associated with the Named Error. One errorCode will be assigned. Refer to Appendix E for the definition of all Error Codes.
2	errorType	Message Type	Named Error Type Set equal to ERTRF
3	errorROEID	Numeric (20)	Not applicable for Named Errors.
4	errorRecordID	Text(64)	Control Number of the unlinked Trade Report as assigned by the FINRA transaction reporting system.
5	symbol	Symbol	Symbol on the unlinked event.
6	eventTimestamp	Timestamp	Execution Timestamp as populated on the unlinked event.
7	quantity	Real Quantity	Execution Quantity on the unlinked event.
8	price	Price	Execution price on the unlinked event.
9	rptngExctgMPID	Text (5)	Reporting Side Executing MPID from the unlinked Trade Report.
10	rptngSideTradeID	Text (40)	Reporting Side Trade ID from the unlinked Trade Report. Populated with Compliance ID in ORF and ADF; Branch Sequence Number in FINRA/NQ TRF and FINRA/NYSE TRF
11	rptngCapacity	Text (1)	Reporting Side Executing Capacity Code from the unlinked Trade Report.
12	rptngSideCode	Text (1)	Reporting Side Code from the unlinked Trade Report.
13	rptngSideShortCode	Text (2)	Reporting Side Short Code from the unlinked Trade Report.
14	contraExctgMPID	Text (5)	Contra Side Executing MPID from the unlinked Trade Report.
15	contraSideTradeID	Text (40)	Contra Side Trade ID from the unlinked Trade Report. Populated with Compliance ID in ORF and ADF; Branch Sequence Number in FINRA/NQ TRF and FINRA/NYSE

Seq	Name	Data Type (Length)	Description
			TRF
16	contraCapacity	Text (1)	Contra Side Executing Capacity Code from the unlinked Trade Report.
17	contraSideCode	Text (1)	Contra Side Code from the unlinked Trade Report.
18	marketCenterID	Text (2)	FINRA transaction reporting system identifier.
19	linkageKey	Text (200)	The CAT derived linkage key used to attempt linkage on the event. See Section 7.5.1.7 for additional information on how the
			linkageKey is provided.
20	reservedForFutureUse		Field is Reserved for Future Use.

7.5.1.7. Linkage Error Summary File Definition

A Linkage Error Summary file is provided when one or more FDID validation errors exist for a processing date. This file summarizes FDID validation errors by the provided FDID value, the Event Type, and the Error Code. This file will not be generated if no FDID validation errors exist for the processing date.

Table 164: Linkage Error Summary File

Seq	Name	Data Type (Length)	Description
1	value	Text (40)	The value of the firmDesignatedID or newOrderFDID field for which an error has occurred.
2	type	Message Type	The message type that has resulted in FDID validation error. (i.e., MENO, MENOS, etc.)
3	errorCount	Unsigned	The number of records of the specified type containing the value that have been rejected.
4	code	Unsigned	Machine-readable error code. See Appendix E for the list of Error Codes.
5	desc	Text (100)	Human-readable description corresponding to the error code; not intended to be processed.

7.5.1.8. Linkage Key Format

The CAT-derived linkage key(s) used to attempt linkage on the event is included in each linkage discovery feedback record. Note the following:

- If a record has more than one linkage discovery error, all linkage keys are provided and are separated by the "at sign" (@).
- In all cases, the optionID/symbol provided on the original record is translated into a CAT Derived Issue ID that is provided in the linkage key. Note that the CAT Derived Issue ID is used by the Plan Processor to perform linkage.

The following table provides a summary of linkage keys that may be seen in the feedback:

Type of Linkage	Linkage Key(s)	Example
Intrafirm	orderKeyDate CATReporterIMID CAT Derived Issue ID orderID	2021-07-30 10:13:34.263236000 ZZZT1 26397 ORDERID1 23
Interfirm	Date portion of eventTimestamp senderIMID receiverIMID CAT Derived Issue ID routedOrderID	2021-07- 30 99999999:ZZZT1 88888888:ABCD1 39606 RTDODR123
Exchange	Date portion of eventTimestamp senderIMID destination CAT Derived Issue ID routedOrderID session	2021-08- 04 99999999:ZZZT1 EXCH1 73493 RTDODR4 56 SSSN1
TRF	Date portion of eventTimestamp CATReporterIMID CAT Derived Issue ID tapeTradeID marketCenterID	2021-08- 04 ZZZT1 26397 TAPETRDID123 MKTCENTE R1
Multiple (for example Intrafirm and Interfirm)	orderKeyDate CATReporterIMID CAT Derived Issue ID orderID@ Date portion of eventTimestamp senderIMID receiverIMID CAT Derived Issue ID routedOrderID	2021-07-30 10:13:34.263236000 ZZZT1 26397 ORDERID1 23@ 2021-07- 30 99999999:ZZZT1 88888888:ABCD1 39606 RTDODR123

7.5.2. JSON Examples for Linkage Discovery Feedback

Linkage Discovery Success (JSON)		
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents.linkage_000001.success	
Meta Feedback File Contents	empty	

```
Linkage Discovery Error (JSON)
Meta Feedback File
                      {\tt SUBID\ MYID\_20170307\_OrderEvents.linkage\_000001.json}
Name
Meta Feedback File
                        "feedbackVersion": "4.1.0",
Contents
                        "submitter": "SUBID",
                        "reporter": "MYID",
                        "fileGenerationDate": 20170307,
                        "stage": "LINKAGE",
                        "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure",
                        "errorFileName":
                      "SUBID_MYID_20170307_OrderEvents.linkage.error_000001.json.bz2",
                        "errorCount": 2102,
                        "errorDetails": [
                             "linkageType": "Intrafirm",
                             "errorTypeCount": 2101
                          },
                            "linkageType": "Interfirm",
                             "errorTypeCount": 1
                            "linkageType": "Exchange",
                             "errorTypeCount": 0
                          },
```

```
Linkage Discovery Error (JSON)
                            "linkageType": "Trade",
                            "errorTypeCount": 0
                        ],
                        "doneForDay": true
Error Data
                      SUBID MYID 20170307 OrderEvents.linkage.error 000001.json.bz2
Feedback File Name
                      [3002,3004], RPR, 123456, <error record as per Table 159: Linkage
Error Data
Feedback File
                      Error - Event Reported by CAT Reporter>
Contents
                      5004, RPR, 123457, <error record as per <a href="Table 163">Table 163</a>: Linkage Errors -
Example here
                      Named on Unlinked Trade Report>
includes only a
                      3701, RPR, 543210, <error record as per <a href="Table 159">Table 159</a>: Linkage Error -
small set of
                      Event Reported by CAT Reporter>
sample data.
                      3701, RPR, 544320, <error record as per Table 159: Linkage Error -
                      Event Reported by CAT Reporter>
Error Summary File
                      SUBID MYID 20170307.linkage.error.summary 000001.json.bz2
Name
Error Summary File
Contents
                        "value": "FDID1",
                        "type": "MENO",
                        "errorCount": 1500,
                        "code": "3701",
                        "desc": "firmDesignatedID not found"
                        "value": "FDID2",
                        "type": "MOOT",
                        "errorCount": 600,
                        "code": "3706",
                        "desc": "firmDesignatedID in sellDetails not valid on event
                      date"
```

Outstanding Linkage Discovery Errors (JSON)		
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents.linkage_outstanding_000001.json	
Meta Feedback File Contents	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "stage": "LINKAGE", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure", "errorFileName": "SUBID_MYID_20170307_OrderEvents .linkage_outstanding.error_000001.json.bz2", "errorCount": 2 "errorDetails": [{ "linkageType": "Intrafirm", "errorTypeCount": 1</pre>	

```
Outstanding Linkage Discovery Errors (JSON)
                              "linkageType": "Interfirm",
                              "errorTypeCount": 1
                              "linkageType": "Exchange",
                              "errorTypeCount": 0
                            },
                              "linkageType": "Trade",
                              "errorTypeCount": 0
                            }
                          ],
                          "doneForDay": true
                       SUBID_MYID_20170307_OrderEvents.linkage.outstanding.error_00000
Error Data Feedback
                       1.json.bz2
File Name
Error Data Feedback
                          "errorCode": [3002,3004]
File Contents
                          "actionType": "RPR"
                          "errorROEID": 123456
                          "errorRecord": {<error record as per <a href="Table 159">Table 159</a>: Linkage Error
                        - Event Reported by CAT Reporter>}
                          "errorCode": [5004]
                          "actionType": "RPR"
                          "errorROEID": 123457
                          "errorRecord": {<error record as per <a href="Table 163">Table 163</a>: Linkage
                        Errors - Named on Unlinked Trade Report>}
```

No Outstanding Linkage Discovery Errors (JSON)	
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents.linkage.outstanding_000001.success
Meta Feedback File Contents	empty

7.5.3. CSV Examples for Linkage Discovery Feedback

Linkage Discovery Success (CSV)	
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents.linkage_000001.success
Meta Feedback File Contents	empty

Linkage Discovery Error (CSV)					
Meta Feedback File Name	SUBID_M	YID_20170307_OrderEvents.linkage_000001.csv				
Meta Feedback File Contents	LINE 1	.1.0,SUBID,MYID,20170307,,,LINKAGE,20170307T154152.000 01089,Failure,,, SUBID_MYID_20170307_OrderEvents linkage.error_000001.csv.bz2,2102, ntrafirm@2101 Interfirm@1 Exchange@0 Trade@0,true				
Error Data Feedback File Name	SUBID_M	D_20170307_OrderEvents.linkage.error_000001.csv.bz2				
Error Data Feedback File Contents Example here includes only a small set of sample data.	LINE 1 LINE 2 LINE 3	3002 3004,RPR,123456, <error -="" 159:="" as="" by="" cat="" error="" event="" linkage="" per="" record="" reported="" reporter="" table=""> 5004,RPR,123457,<error -="" 163:="" as="" errors="" linkage="" named="" on="" per="" record="" report="" table="" trade="" unlinked=""> 3701,RPR,123458,<error -="" 159:="" as="" by="" cat="" error="" event="" linkage="" per="" record="" reported="" reporter="" table=""></error></error></error>				
Error Summary File Name	SUBID_M	YID_20170307.linkage.error.summary_000001.csv.bz2				
Error Summary File Contents	Line 1 Line 2	FDID1, MENO, 1500, 3701, firmDesignatedID not found FDID2, MOOT, 600, 3706, firmDesignatedID in sellDetails not valid on event date				

Outstanding Linkage Disc	Outstanding Linkage Discovery Errors (CSV)					
Meta Feedback File Name	SUBID_M	BID_MYID_20170307_OrderEvents.linkage.outstanding_000001.csv				
Meta Feedback File Contents	LINE 1	4.1.0, SUBID, MYID, 20170307,,, LINKAGE, 20170307T154152.000001089, Failure,,, SUBID_MYID_20170307_OrderEvents .linkage.outstanding.error_000001.csv.bz2,2, Intrafirm@1 Interfirm@1 Exchange@0 Trade@0,true,				
Error Data Feedback File Name	SUBID_M	YID_20170307_OrderEvents.linkage.outstanding.error_00000 z2				
Error Data Feedback File Contents	LINE 1	3002 3004,RPR,123456, <error <u="" as="" per="" record="">Table 159: Linkage Error - Event Reported by CAT Reporter> 5004,RPR,123457,< error record as per Table 163:</error>				
	TINE Z	Linkage Errors - Named on Unlinked Trade Report>				

No Outstanding Linkage Discovery Errors (CSV)				
Meta Feedback File Name	SUBID_MYID_20170307_OrderEvents.linkage.outstanding_000001.succ ess			
Meta Feedback File Contents	empty			

7.6. Corrections

Errors found during CAT processing and found by CAT Reporters subsequent to transmission must be repaired. The reporting of Error Corrections is facilitated in CAT through submissions via SFTP and the CAT Reporter Portal. Certain fields are defined within the Event definitions in <u>Section 4 Equity Events</u>,

and <u>Section 5 Option Events</u>, to facilitate the reporting of corrections including: *actionType*, *firmROEID*, *errorROEID*.

Corrections may be reported for any previously submitted event. A corrected record will replace the original record for all further processing when the corrected record is received prior to T+4. The following scenarios are supported:

- Repair of events for which a CAT Error was provided in feedback
- Correction of events initiated by firms for which there is no associated CAT error feedback
- Deletion of a single event to remove erroneous events which did or did not result in a CAT Error
- Deletion of a file, resulting in the deletion of all events and respective CAT Errors
- The reporting of corrections may occur on the same CAT Processing Date as the original submission

7.6.1. Repair CAT Errors

A repair is instructed when repairing events for which a CAT Error was provided in feedback. The following rules apply:

- 1. A Repair record must contain the actionType 'RPR'
- 2. Repair records must populate the *errorROEID* equal to the *errorROEID* value provided by CAT in the respective error feedback; otherwise the record will be rejected.
- 3. Repair records may be reported within Data Files, among other CAT action types.
- 4. A Repair record must be reported for CAT Errors generated as a result of a record that is not readable, or when the record has an error associated with the eventTimestamp, or firmROEID.
- 5. CAT errors for which a Repair record is processed will be considered repaired.
- 6. CAT errors for which a Repair record is processed after T+3 @ 8:00 AM ET will be considered as a late repair.
- 7. Repair records processed prior to T+4 @ 8:00 AM ET will result in the elimination of the previously submitted record from further processing.
- 8. Repair records processed after T+4 @ 8:00 AM ET will be appended to the audit trail.
- 9. In cases where an Industry Member receives an ingestion error on a repair record that was intended to correct a Linker error, two separate errors exist in CAT. To repair these errors, the following actions can be taken:
 - If both submissions that resulted in the errors were submitted with the same firmROEID, then
 a single repair submission can repair both errors. Industry Members must report the
 Correction using actionType COR populated with the firmROEID of the errors, which will
 resolve both errors.

• If the two original submissions that resulted in the errors were not submitted with the same firmROEID, then two actions are required. Industry Members must submit a Delete instruction for one of the errors, and submit a Repair or Correction for the other.

7.6.1.1. JSON Repair Record Example

Repair Record Example (JSON)

```
"actionType": "RPR",
"errorROEID": 12345678,
"firmROEID": "20170801 firmROE012345",
"type": "MENO",
"orderKeyDate": "20170801T143031.000000",
"orderID": "012345",
"symbol": "XYZ",
"eventTimestamp": "20170801T143031.123456",
"manualFlag": false,
"deptType": "0",
"side": "B",
"price": 10.01,
"quantity": 500,
"orderType": "LMT",
"timeInForce": {"DAY":20170801},
"tradingSession": "REG",
"custDspIntrFlag": false,
"firmDesignatedID": "PROP456",
"accountHolderType": "O",
"negotiatedTradeFlag": false
```

7.6.1.2. CSV Repair Record Example

```
Repair Record Example (CSV)

LINE n

RPR,12345678,20170801_firmROE012345,MENO,,20170801T143031.000000,
012345,XYZ,20170801T143031.123456,false,,,N,O,,Buy,10.01,500,,LMT,
DAY=20170801,REG,,false,PROP456,O,,,false,,,,,,,,,
```

7.6.2. Firm Initiated Corrections

A firm initiated correction is instructed for correcting events for which there is no associated CAT error feedback or the firm repairs an error without submitting an *errorROEID*. The following rules apply:

- 1. A firm initiated correction record must contain the actionType 'COR'.
- 2. Firm initiated correction records must assign the *firmROEID* equal to the *firmROEID* of the original submission, otherwise the record will be rejected.
- 3. Firm initiated corrections must be used for correcting events for which there is no associated CAT error.

- 4. Firm initiated corrections may be used to repair an event for which a CAT Error was provided in feedback.
- 5. Firm initiated corrections may be reported within Data Files, among other CAT event types.
- 6. Events for which a firm initiated correction is processed by T+3 @ 8:00 AM ET will be considered corrected.
- 7. Events for which a firm initiated correction is processed after T+3 @ 8:00 AM ET will be considered as a late correction.
- 8. Events for which a firm initiated correction is processed prior to T+4 @ 8:00 AM ET will result in the elimination of the previously submitted record from further processing.
- 9. Events for which a firm initiated correction processed after T+4 @ 8:00 AM ET will be appended to the audit trail.
- 10. Firm identified errors associated with the CAT Reporter IMID must be corrected using the Delete Instruction. Refer to Section 7.6.3 below.

7.6.2.1. JSON Firm Initiated Correction Example

Firm-Initiated Correction Example (JSON)

```
"actionType": "COR",
"firmROEID": "20170801 firmROE012345",
"type": "MENO",
"orderKeyDate": "20170801T143031.000000",
"orderID": "012345",
"symbol": "XYZ",
"eventTimestamp": "20170801T143031.123456",
"manualFlag": false,
"deptType": "O",
"side": "B",
"price": 10.01,
"quantity": 500,
"orderType": "LMT",
"timeInForce": {"DAY":20170801},
"tradingSession": "REG",
"custDspIntrFlag": false,
"firmDesignatedID": "PROP456",
"accountHolderType": "O",
"negotiatedTradeFlag": false
}
```

7.6.2.2. CSV Firm-Initiated Correction Example

```
Firm-Initiated Correction Example (CSV)

LINE n

COR,,20170801_firmROE012345,MENO,,20170801T143031.000000,012345,

XYZ,20170801T143031.123456,false,,N,O,,Buy,10.01,500,,LMT,

DAY=20170801,REG,,false,PROP456,O,,,false,,,,,,,,,,
```

7.6.3. Record Delete Instructions

Record deletions are used to support the removal of one or more erroneous events reported to CAT. The following rules apply:

- A delete instruction must contain the actionType 'DEL'.
- A delete instruction does not support the full restatement of the record that is being deleted.
- Delete instructions associated with a CAT error may populate the errorROEID equal to the
 errorROEID value provided by CAT in the respective error feedback OR may populate the firmROEID
 equal to the firmROEID of the original submission.
- A Delete instruction for an event for which a CAT error was not generated must populate the firmROEID equal to the firmROEID of the original submission.
- Delete instructions may be reported within Data Files, among other CAT event types.
- CAT errors for which a Delete instruction is processed will be considered deleted.
- CAT errors for which a Delete instruction is processed after to T+3 @ 8:00 AM ET will be considered as a late repair.
- Delete instructions processed prior to T+4 @ 8:00 AM ET will result in the elimination of the previously submitted record from further processing.
- Delete instructions processed after T+4 @ 8:00 AM ET will be appended to the audit trail.
- A firmROEID used in a CAT record for which received a Delete instruction was reported may be reused after the Delete instruction is processed.
- Repair or Delete instructions for CAT errors where the CAT record was malformed or had an error associated with the eventTimestamp or firmROEID must be reporting using the error ROE ID provided by CAT.

Table 165: Delete Instruction Record Format

Seq	Name	Data Type (Length)	Description	Include Key
1	actionType	Choice	Set equal to 'DEL'	R
2	errorROEID	Numeric (20)	When deleting an event for which a CAT Error was provided, populate the errorROEID equal to the errorROEID value provided by CAT in the respective error feedback.	С
3	firmROEID	Text (64)	When deleting an event for which a CAT error was not generated must populate the <i>firmROEID</i> equal to the <i>firmROEID</i> of the original submission.	С

7.6.3.1. JSON Record Delete Examples

Delete Record Example for an Event with an Associated CAT Error (JSON)

```
{
    "actionType": "DEL",
    "errorROEID": 45678901
}
```

Delete Record
Example for an
Event without an
Associated CAT
Error (JSON)

```
{
  "actionType": "DEL",
  "firmROEID": "20190416_FirmROE123"
}
```

7.6.3.2. CSV Record Delete Example

```
Delete Record Example for an Event with an Associated CAT Error (CSV)

LINE n DEL, 45678901,
```

```
Delete Record Example for an Event without an Associated CAT Error (CSV)

LINE n DEL,,20190416_FirmROE123
```

7.6.4. File Deletion

File Deletion is used to support the deletion of all events within a single Data File, including all respective CAT errors for those events. File Deletions are used for files with included Event data representing an Event Date that is prior to T+4 @ 8:00 AM ET. Deletion of events for Event Dates after T+4 @ 8:00 AM ET is possible using the Delete Record instructions described in Section 7.6.3.

The following rules apply for file deletions:

- 1. Data Files must be deleted individually by the original Submitter of the file. Blocks are not supported.
- 2. File Acknowledgement and File Integrity feedback will be generated for every file delete instruction submitted by the firm.
- 3. After the File Delete Instruction has been acknowledged, a *firmROEID* that was contained in the file being deleted can be reused in a new submission.
- 4. The file deletion process will not be supported after T+4 @ 8:00 AM ET. All events contained in the original file for which the file delete instruction was received, must represent a CAT Trading Day that is prior to T+4 @ 8:00 AM ET.

- File deletions are not supported for events with an Action Type of COR, DEL or RPR. All events contained with the original file for which the file deletion instruction was received, must have an Action Type of NEW.
- 6. Records contained in the original file being deleted will be removed from further processing and related CAT Errors will be considered as deleted.
- 7. Filenames must not be reused, even after a file is deleted.
- 8. Delete file instructions are reported by submitting an empty Data File named as:
 <file base name of original Data File>.DEL.
 Format Extension>.
 Compression Extension>:

File Deletion (JSON)	
Data File Name	SUBID_MYID_20190207_OrderEvents_000002.DEL.json.bz2
Data File Contents	Empty file

7.6.5. Same Day Corrections

When error feedback is received, the CAT Reporter can take immediate action which may result in the original submission and correction occurring during the same processing date. Additionally, there will be instances when a Submitter identifies a CAT submissions issue for which CAT error feedback is expected but has not yet been received. In such cases, it is also possible to submit a same day correction.

Although the CAT Processor design processes data submissions in processing stages, the data within each stage does not have a prescribed processing order. To support the processing of same day corrections for which error feedback has not been received, the following guidelines for usage of each correction mechanism are recommended:

- File Deletion instructions may be reported any time subsequent to the delivery of File Integrity feedback of the associated file.
- Record deletions may be instructed after receiving File Ingestion feedback for the file in which the record was submitted.
- Firm initiated corrections may be reported after receiving File Ingestion feedback for the file in which the record was submitted.

8. Testing

CAT will provide an environment for testing that mirrors the current functionality of the CAT Production Environment, as well as functionality for the next release version of the CAT environment when available. The CAT Test Environment will automatically determine which specification version Industry Members and CAT Reporting Agents are using for submissions. If error reporting formats change, Industry Members and CAT Reporting Agents will receive feedback in the current and new specification via sftp, as well as have access to current/new CAT Reporter portal URLs for specification changes that impact the CAT Reporter portal. Current/new connectivity changes will also be supported concurrently.

The Test Environment performs lifecycle linkage, and Industry Members and CAT Reporting Agents are encouraged to coordinate testing with their counterparties so as to test lifecycle linkage with their counterparties. Without simultaneous contra-party reporting in the Test Environment, Industry Members and CAT Reporting Agents will not be able to test linkage with their counterparties. Note that, effective May 16, 2022, Named Errors will be generated in the Test Environment only when the named organization has also submitted data to the Test Environment for the same Processing Date.

Industry Members and CAT Reporting Agents must test their submissions using the Test Environment before they begin submitting to the Production Environment.

The Test Environment is available 24 hours a day, 6 days a week. Refer to the CAT website for contact information and hours of operation for support.

Industry Members and CAT Reporting Agents connect to the Test Environment in the same manner they would connect to the Production Environment. However, for the connection to the Test Environment, one or more alternate IP addresses or URLs may be used.

Testing does not relieve an Industry Member of its responsibilities to submit production data to the CAT System.

9. Additional Information

9.1. Public Website

The CAT Public Website, www.catnmsplan.com, is available via the public internet, and is hosted outside the CAT secure network. The CAT Public Website provides information about CAT, including links to SEC Rule 613, Participant and Industry Member Technical Specifications, FAQs, training materials, and CAT Helpdesk contact information.

Web announcements will be made available on the public website. You can also <u>subscribe</u> to receive email notifications regarding changes to the website and system status notifications. These announcements are used to post information related to the operation of CAT.

Contact help@finracat.com for any questions and/or feedback regarding this document.

Appendices

Appendix A: Change Release Management Process

Following publication of version 1.0, changes to this Industry Member Technical Specification will be released as follows:

- All proposed amendments to the Technical Specifications will be made in accordance with the CAT NMS Plan, including being approved or deemed approved (as applicable) by the Consolidated Audit Trail, LLC Operating Committee.
- Prior to the go-live date for any system changes set forth in the Technical Specifications:
 - A new Technical Specifications will be posted to the CAT Public Website, www.catnmsplan.com.
 - A notice will be posted on the CAT NMS Plan Public website with a summary of changes, the go-live date for the changes and links to relevant information.
 - One or more email alerts will be sent to the email address(es) on file for the CAT Reporters with a summary of changes set forth in the revised Technical Specifications, the go-live date for the changes and links to relevant information.
 - Industry Members will be permitted to perform testing of the revised Technical Specifications in advance of the go-live date for the changes. Information on such testing will be set forth in the notices and alerts described above.
 - As the go-live date approaches, Industry Members will be able to conduct testing and will receive support from the Plan Processor to prepare for production reporting using the revised Technical Specifications format. The revised Technical Specifications will include a summary list of changes as well as a table listing the specific areas of the document where the changes have been made.

Appendix B: Clock Synchronization Requirement

In previous sections, details are described regarding Order Events and data elements. Timestamp, as one of the required data elements for each order event, must be correctly reported by Industry Members at predefined granularity. This section provides an overview of the corresponding clock synchronization requirements applicable to Industry Members.

In order to comply with applicable requirements of Clock Synchronization and correctly record the Timestamp fields for order events. Industry Members are required to synchronize Business Clocks at a minimum to within 50 milliseconds of the time maintained by the National Institute of Standards and Technology (NIST) and to maintain such synchronization. Business Clocks that are solely used for Manual CAT events or for the time of allocation on Allocation Reports must be synchronized at a minimum to within a one second tolerance.

The tolerance includes:

- The difference between the NIST standard and a time provider's clock;
- Transmission delay from the source; and
- The amount of drift in the Participant's clock.

To ensure the accuracy of timestamps for Reportable Events, Industry Members must document and maintain their synchronization procedures for Business Clocks. Industry Members must keep a log of the time when they synchronize their Business Clocks and the results of the synchronization process. This log must include notice of any time a Business Clock drifts more than the applicable tolerances specified above. Such log must include results for a period of time of not less than five years ending on the then current date, or for the entire period for which the Industry Member has been required to comply with this Rule if less than five years. Industry Members must also certify their compliance with these clock synchronization requirements and report violations according to requirements established by the Operating Committee.

Any time provider and technology may be used for clock synchronization as long as the Business Clocks are in compliance with the accuracy requirement.

If additional details are needed, refer to Participants' applicable rules.

Appendix C: Representative Order Linkages

The CAT NMS Plan requires that customer/client orders be linked to representative orders created in firm accounts for the purpose of facilitating the execution of a customer/client order. This Appendix outlines reporting requirements for creating linkages between customer/client and representative orders.

C.1 Representative Order Reporting Requirements

C.1.1 Representative Order Reporting

Representative orders must be reported to CAT and marked as a representative order using the *representativeInd* field on New Order events.

The table below describes the *representativeInd* field values:

Table 166: representativeInd Field Values

Value	Definition	Explanation
Equities	s Values	
Υ	Representative order, linkage required	This value must be used for representative orders where linkage is required as described below.
YS	Representative order, linkage required; details in supplement event	This value must be used if a firm provides aggregated order IDs on an order supplement event.
YP	Representative order, pricing guarantee, no linkage required	This value must be used when a firm receives a customer/client order, guarantees an execution price (e.g., VWAP) and then originates proprietary orders in an effort to work the customer/client order. Linkage may not be possible as the customer/client order may not be filled from the proprietary orders if the guaranteed price is not achieved.
		All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.
YE	Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked OMS-EMS or position fill workflow)	This value must be used to report proprietary orders that are originated as part of workflows where there is no systemic link between customer/client orders and representative firm orders and which includes disparate OMS-EMS scenarios and position fill workflows.
		In such workflows, MENO events for any street side orders reported with a YE indicator are not required to be linked to a customer/client order, and the aggregatedOrders field must be blank.
		All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.
Options	s Values	
0	Options combined order, linkage required	This value must be used for options combined orders where linkage is required.

Value	Definition	Explanation
OS	Options combined order, linkage required; details in a supplement event	This value must be used for options combined orders where a firm provides aggregated order IDs on an options order supplement event.
Multi-Le	eg Values	
OML	Multi-Leg Option combined order, linkage required/	This value must be used when multi-leg orders are combined into a single aggregated multi-leg order.
OMS	Options combined order, linkage required; details in a supplement event	This value must be used for Multi-Leg options combined orders where a firm provides aggregated order IDs on a Multi-Leg Order Supplement event.
Commo	on Values – Applicable to both Equities and	Options
N	Not a representative order/options combined order, linkage is not applicable	The value of N must be provided on any order that a firm is able to explicitly determine is not a representative order or an options combined order.

C.1.2 Representative Order Linkages

Linkage is required between the representative street side order and the order being represented for both executed and unexecuted orders. Executed orders must also have a link between the Order Fulfillment event for the customer/client order and the representative order from which the fill came.

The following fields are used in the linkage process:

At the Order Level

- representativeInd indicates if an order was originated to represent a customer/client order.
- aggregatedOrders specifies the original order IDs and quantities being consolidated in the representative order.

At the Order Fulfillment Level

- orderID contains the firm side order that was used to fill the customer/client order.
- fulfillmentLinkType indicates whether there is order level and trade level linkage, only trade level linkage (e.g., fill from the pre-existing firm order), or why the firm side details are not present.
- FDID contains the firm account that was used to fill the customer/client order (only applicable when a fulfillmentLinkType of 'YE' is populated). However, all Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.
- Linkage on the Order Fulfillment is indicated by the fulfillmentLinkType.

The following table describes the *fulfillmentLinkType* field values:

Table 167: fulfillmentLinkType Field Values

Value	Definition	Explanation
Equities	s Values	
Y	Representative order, linkage required	This value must be used for representative orders where linkage is required. If this value is used, the <i>orderID</i> field in the firm side details is required to be populated.
YS	Customer/Client order filled from multiple representative orders, linkage required; details provided in a supplement event	This value must be used when a customer/client order is filled from multiple representative orders. If this value is used, <i>firmDetails</i> in the MEOF event must be blank, and the details of each representative order used to fill the customer/client order must be provided in a MEOFS event.
YP	Fill from pre-existing Principal order, linkage required	This value must be used when a customer/client order is filled from a proprietary order or pre-existing quote that was originated prior to receipt of the customer/client order. For example, this value must be used when a customer/client order is filled as a result of a Manning obligation and the proprietary order was not reported to CAT with the customer/client order ID in the aggregatedOrders field.
YE	Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked	This value must be used to report proprietary orders that are originated as part of workflows where there is no systemic link between customer/client orders and representative firm orders and which includes disparate OMS-EMS scenarios and position fill workflows.
	OMS-EMS or position fill workflow)	In such workflows, MEOF events for any customer/client orders that are filled from a representative order reported with a YE indicator are required to contain the FDID of the firm account from which the order was filled. In addition, the accountHolderType must be populated with the type of firm account.
		All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.
FOR	Fulfillment on an order routed to a foreign destination, no linkage required	This value must be used to report the fill of an order (customer/client or proprietary) that was routed to a foreign destination. When a value of FOR is populated, the <i>firmDetails</i> must be blank.
Options	s Values	
0	Combined options order, linkage required	This value must be used for options combined orders where linkage is required. If this value is used, the <i>orderID</i> field in the <i>firmDetails</i> is required to be populated.
os	Customer/Client order filled from multiple combined options orders, linkage required; details provided in a supplement event	This value must be used when a customer/client order is filled from multiple combined options orders. If this value is used, firmDetails in the MOOF event must be blank, and the details of each combined order used to fill the customer/client order must be provided in a MOOFS event
Multi-Le	eg Values	
OML	Multi-Leg Option combined order, linkage required	This value must be used to report the fill of a Multi-Leg option order at the leg level when the <i>orderID</i> referenced in the <i>firmDetails</i> is a Multi-Leg New Order event.

C.2 Representative Order Marking and Linkage Requirements

C.2.1 Single Order Scenarios

The table below details requirements for both linkage and marking of a Representative Order in Single Order scenarios. Refer to Appendix G: Data Dictionary for relevant field values. Refer to the CAT Industry Member Reporting Scenarios document for further information on how the relevant field values must be populated for each scenario.

Table 168: Requirements for Both Linkage and Marking of a Representative Order in Single Order

Scenarios

		Is Linkage Required?		Order Required?
Scenario Description	MENO	MEOF	MENO	MEOF
Riskless Principal Scenarios				
A. Single Prop Order, single fill	Yes	Yes	Yes	Yes
B. Single Prop Order, multiple fills, print for print	Yes	Yes	Yes	Yes
C. Single Prop Order, multiple fills, average price fill to customer/client	Yes	Yes	Yes	Yes
D. Multiple Prop Orders, multiple fills, print for print	Yes	Yes	Yes	Yes
E. Multiple Prop Orders, multiple fills, average price fill to customer/client	Yes	Yes	Yes	Yes
F. Fill of a customer/client order from a pre-existing principal order (Manning scenario)	No	Yes	No	Yes
Agency Scenarios Applies when a firm's order handling and/or reporting system does not a the customer/client order or child order (with the same Order ID) and ins separate order (with a different Order ID) created by the firm for the purp	stead must g	generate/re _i	port a route	from a
G. Single Rep Order, single fill	Yes	Yes	Yes	Yes
H. Single Rep Order, multiple fills, print for print to customer/client account	Yes	Yes	Yes	Yes
I. Single Rep Order, multiple fills, single average price booking to customer/client account; no print for print details available to customer/client account	Yes	Yes	Yes	Yes
J. Multiple Rep Orders, multiple fills, print for print	Yes	Yes	Yes	Yes
K. Multiple Prop Orders, multiple fills, average price fill to customer/client	Yes	Yes	Yes	Yes
Other Single Order Scenarios				
Q. Price Guarantee Scenarios (e.g., GVWAP, Stop Stock) - either single or aggregated orders	No	Yes	Yes	Yes
R. Single customer/client order filled from multiple representative orders	Yes	Yes	Yes	Yes

C.2.2 Net Trading Scenarios

The table below details requirements for both linkage and marking of a Representative Order in Net Trading scenarios. Refer to Appendix G: Data Dictionary for relevant field values. Refer to the CAT Industry Member Reporting Scenarios document for further information on how the relevant field values must be populated for each scenario.

Table 169: Requirements for Both Linkage and Marking of a Representative Order in Net Trading

Scenarios

	Is Linkage Required?			Order Required?
Scenario Description	MENO	MEOT	MENO	MEOT
Principal Net Trading - assumed that all street side fills are guaranteed t	o go to the	customer/c	lient order	
L. Single Prop Order, multiple fills, print for print	Yes	Yes	Yes	N/A
M. Single Prop Order, multiple fills, print for print	Yes	Yes	Yes	N/A
N. Single Prop Order, multiple fills, average price fill to customer/client	Yes	Yes	Yes	N/A
O. Multiple Prop Orders, multiple fills, print for print	Yes	Yes	Yes	N/A
P. Multiple Prop Orders, multiple fills, average price fill to customer/client	Yes	Yes	Yes	N/A

C.2.3 Aggregated Order Scenarios

The table below details requirements for both linkage and marking of a Representative Order in Aggregated Order scenarios. Refer to Appendix G: Data Dictionary for relevant field values. Refer to the CAT Industry Member Reporting Scenarios document for further information on how the relevant field values must be populated for each scenario.

Table 170: Requirements for Both Linkage and Marking of a Representative Order in Aggregated

Order Scenarios

		nkage iired?		Order Required?
Scenario Description	MENO	MEOF	MENO	MEOF
A. Multiple customer/client orders, single aggregated order	Yes	Yes	Yes	Yes
B. Multiple customer/client orders, multiple aggregated orders	Yes	Yes	Yes	Yes
C. Multiple orders from one customer/client combined into one aggregated order in the customer's/client's account	Yes	Yes	Yes	Yes
D. Multiple customer/client orders combined into a single aggregated order, Riskless Principal order created to represent the aggregated order	Yes	Yes	Yes	Yes

C.2.4 Representative Eligible Scenarios

The table below details requirements for both linkage and marking of an order that is "Representative Eligible". Refer to Appendix G: Data Dictionary for relevant field values. Refer to the CAT Industry Member Reporting Scenarios document for further information on how the relevant field values must be populated for each scenario.

Table 171: Requirements for Both Linkage and Marking of a Representative Eligible Order

	Is Linkage Required?		Is Rep Order Marking Required?	
Scenario Description	MENO	MEOF	MENO	MEOF
A. There is no systemic link between customer/client orders and representative firm orders because of disparate OMS-EMS.	No*	No*	Yes	Yes
B. There is no systemic link between customer/client orders and representative firm orders because the customer/client orders were filled from an existing position.	No*	No*	Yes	Yes

^{*} All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.

C.2.5 Options Scenarios

The table below details requirements for both linkage and marking of options combined orders. Refer to Appendix G: Data Dictionary for relevant field values. Refer to the CAT Industry Member Reporting
Scenarios document for further information on how the relevant field values must be populated for each scenario.

Table 172: Requirements for Both Linkage and Marking of Options Combined Orders

		kage red?	Is Rep Order Marking Required?	
Scenario Description	MONO	MOOF	MONO	MOOF
A. Single combined order, multiple customer/client fills	Yes	Yes	Yes	Yes

C.2.6 Multi-Leg Option Scenarios

The table below details requirements for both linkage and marking of multi-leg option orders. Fills of a Multi-Leg order occur at the leg level and must be reported to CAT as simple Order Fulfillment or Options Order Fulfillment events with a *fulfillmentLinkType* value of "OML" to indicate that the *orderID* referenced in the *firmDetails* is a Multi-Leg New Order event.

Refer to <u>Appendix G: Data Dictionary</u> for relevant field values. Refer to the <u>CAT Industry Member</u>

<u>Reporting Scenarios</u> document for further information on how the relevant field values must be populated for each scenario.

Table 173: Requirements for Both Linkage and Marking of Multi-Leg Option Orders

	Is Linkage Required?		Is Rep Order Marking Required?	
Scenario Description	MLNO	MEOF/MOOF	MLNO	MEOF/MOOF
A. Single combined order, multiple customer/client fills	Yes	Yes	Yes	Yes
B. Customer/client order received as FIX messages representing single legs with instructions to treat as a Multi-Leg order.	No	N/A	No	N/A
C. Multi-Leg order received manually and followed by FIX messages representing individual legs	No	N/A	No	N/A

Appendix D: CAT Date Definitions and Reporting Guidelines

The following key date terms are used throughout the document for reporting instructions:

Table 174: Key Date Terms

Term	Definition	Usage
Event Timestamp	The date and time the event occurred. If electronic, required to be reported at the most granular level an Industry Member's order handling or execution systems use to capture data for the reported event, with at least millisecond granularity. If manual, required to be reported in increments of at least one second. If the order is immediately systematized, required to be reported with at least millisecond granularity.	eventTimestamp is a field defined on every CAT event. Used to assign the CAT Trading Day.
Event Date	The date portion of the Event Timestamp.	Part of all Route Linkage Keys and the TRF Linkage Key, used to link records within the Event Date. Required to be populated as the prefix of a firmROEID assignment.
File Generation Date	The date the file was generated or reported.	Used to guarantee uniqueness for a file across dates.
CAT Trading Day	Trading Day for Industry Members is defined as beginning immediately after 4:15:00 PM and no fractions of a second Eastern Time on one trade date and ending at exactly 4:15:00 PM and no fractions of a second Eastern Time on the next trading date. Weekends and holidays are not considered a Trading Day. Trading Days that close early end 15 minutes after the Market Close. For an event occurring on CAT Trading Day T, submissions are due to CAT by T+1 @ 8:00 AM ET; Corrections are due by T+3 @ 8:00 AM ET. Refer to Section 6.4 for more information. Examples demonstrating the calculation of CAT Trading Day, Reporting Due Date and Repair Due Date.	Used to calculate the submission due date, and corrections due date. Submission Due Date: CAT Trading Day + 1 @ 8:00 AM ET Correction Due Date: CAT Trading Day + 3 @ 8:00AM ET
Trade Date	Trade Date for Industry Member is defined as beginning immediately after 23:59:59.999999 ET on Trade Date T - 1 and up to 23:59:59.999999 ET of the next Trade Date T. Weekends and holidays are not considered a Trade Date. An event occurring on a weekend or holiday will be assigned to the next Trade Date.	Used to calculate the due date of data delivered to Regulatory Users. Due Date for Data and Associated Lifecycle Assignment delivery to Regulatory Users: T+5 @ 8:00 AM ET Used to calculate summaries and present feedback on the CAT Reporter Portal representing events for the same Trade Date, regardless of when the events were reported.

Term	Definition	Usage
CAT Processing Date	Date representing the set of events reported for a CAT Trading Day. Events reported late to CAT will be assigned the CAT Processing Date reflective of when they were reported. For example, an event, that occurred T @ 2:00 PM ET that is reported to CAT after T+1 @ 8:00 AM ET and prior to T+2 @ 8:00 AM ET will be assigned CAT Processing Date of T+1.	Used to identify late submissions and late repairs. Used to calculate summaries and present feedback on the CAT Reporter Portal representing events reported on the CAT Processing Date, regardless of the Event Date.
Order Key Date	The date and time the OrderID was assigned.	orderKeyDate is a field defined on Order events, and other events which specify an Order Key. Used to support uniqueness of an Order Key. If time is not needed to guarantee a unique Order Key, the time portion may be populated with zeros.
Trade Key Date	The date and time the TradeID was assigned.	tradeKeyDate is a field defined on Trade events. Used to support uniqueness of a Trade Key. If time is not needed to guarantee a unique Trade Key, the time portion may be populated with zeros.
Quote Key Date	The date and time the QuoteID was assigned.	quoteKeyDate is a field defined on Quote events. Used to support uniqueness of a Quote Key. If time is not needed to guarantee a unique Quote Key, the time portion may be populated with zeros.
Fill Key Date	The date and time the FulfillmentID was assigned.	fillKeyDate is a field defined on Fulfillment events. Used to support uniqueness of a Fulfillment Key. If time is not needed to guarantee a unique fulfillment Key, the time portion may be populated with zeros.
Allocation Key Date	The date and time the AllocationID was assigned	allocationKeyDate is a field defined on Allocation events. Used to support uniqueness of an Allocation Key. If time is not needed to guarantee a unique Allocation Key, the time portion may be populated with zeros.

The following table illustrates the assignment of the Event Date, CAT Trading Day and the associated deadlines for Submission and Correction.

Table 175: Deadlines for Submission and Correction

#	Event Timestamp	Event Date	Holiday	CAT Trading Day	Submission Due (T+1 @ 8:00 AM ET)	Corrections Due (T+3 @ 8:00 AM ET)
1	Wed, 9/12/18 16:13:00 ET	9/12/18	n/a	9/12/18	9/13/18, 8:00 AM ET	9/17/18 8:00 AM ET
2	Wed, 9/12/18 16:16:00 ET	9/12/18	n/a	9/13/18	9/14/18, 8:00 AM ET	9/18/18 8:00 AM ET
3	Fri, 9/14/18 16:01:00 ET	9/14/18	n/a	9/14/18	9/17/18, 8:00 AM ET	9/19/18 8:00 AM ET
4	Fri, 9/14/18 16:45:00 ET	9/14/18	n/a	9/17/18	9/18/18, 8:00 AM ET	9/20/18 8:00 AM ET
5	Sat, 9/15/18 12:30:01 ET	9/15/18	n/a	9/17/18	9/18/18, 8:00 AM ET	9/20/18 8:00 AM ET
6	Mon, 9/17/18 10:30:05 ET	9/17/18	n/a	9/17/18	9/18/18, 8:00 AM ET	9/20/18 8:00 AM ET
7	Wed, 1/16/19 11:00 AM ET	1/16/19	1/21/19	1/16/19	1/17/19 8:00 AM ET	1/22/19 8:00 AM ET
8	Thur, 1/17/19 16:22 PM ET	1/17/19	1/21/19	1/18/19	1/22/19 8:00 AM ET	1/24/19 8:00 AM ET
9	Sat, 1/19/19 11:15 AM ET	1/19/19	1/21/19	1/22/19	1/23/19 8:00 AM ET	1/25/19 8:00 AM ET
10	Mon, 1/21/19 10:00 AM ET	1/21/19	1/21/19	1/22/19	1/23/19 8:00 AM ET	1/25/19 8:00 AM ET

Appendix E: Error Codes

This section defines the error and warning codes generated by CAT. Each code is defined to include the reason for the error or warning, including the associated fields. Warnings are not subject to further processing and firms are not required to take any action on them. Codes are assigned in ranges to represent similar types of errors within the same range, related by validation type and/or by linkage type. Codes are organized by the CAT Processing stages including:

- File Integrity
- Data Ingestion
- Linkage Discovery

E.1 File Integrity Errors

The table below contains error messages that are associated with File Integrity. Errors are associated with data files and filenames.

Table 176: File Integrity Errors

Error Code	Error Code Description	Explanation	Error/ Warning
1101	Retired Error Code	Error/warning code has been retired and may no longer be used.	Warning
1103	Duplicate File	A file with the same base name was previously accepted by CAT.	Error
1104	Missing or Invalid CAT Submitter ID	CAT Submitter ID is missing or invalid.	Error
1105	Retired Error Code	Error code has been retired and may no longer be used.	Error
1106	Retired Error Code	Error code has been retired and may no longer be used.	Error
1107	Retired Error Code	Error code has been retired and may no longer be used.	Error
1108	File exceeds the supported size limit	File size exceeds the maximum uncompressed size of 100 GB via SFTP and 1GB via the CAT Reporter Portal.	Error
1109	Unauthorized CAT Submitter ID	CAT Submitter ID has not been authorized to submit for the CAT Reporter IMID. Verify that the CAT Submitter ID and CAT Reporter IMID in the file name have a transmitting relationship.	Error
1110	Retired Error Code	Error code has been retired and may no longer be used.	Error
1111	Retired Error Code	Error code has been retired and may no longer be used.	Error
1112	Retired Error Code	Error code has been retired and may no longer be used.	Error
1115	Retired Error Code	Error code has been retired and may no longer be used.'	Error
1116	Retired Error Code	Error code has been retired and may no longer be used.	Error
1120	Invalid File in Delete Instruction	The delete instruction is on a file that does not exist in CAT, contains event dates more than four days prior to the current processing date, or contains <i>actionType</i> other than 'NEW'.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
1121	Retired Error Code	Error code has been retired and may no longer be used.	Error
1122	Retired Error Code	Error code has been retired and may no longer be used.	Error
1123	Retired Error Code	Error code has been retired and may no longer be used.	Error
1124	Retired Error Code	Error code has been retired and may no longer be used.	Error
1126	Retired Error Code	Error code has been retired and may no longer be used.	Error
1127	Retired Error Code	Error code has been retired and may no longer be used.	Error
1128	File exceeds maximum records allowed for Web upload	A single Data File uploaded via the Reporter Portal must not contain more than 100,000 records.	Error

E.2 Data Ingestion Errors

The table below contains error messages that are associated with Data Ingestion. Error codes are associated with specific fields within an event.

Table 177: CAT Event Ingestion Errors

Error Code	Error Code Description	Explanation	Error/ Warning
2001	Missing or Invalid accountHolderType	When required, accountHolderType must be populated with one of the allowable values.	Error
2002	Missing or Invalid actionType	actionType must be populated with one of the allowable values.	Error
2003	Missing or Invalid affiliateFlag	affiliateFlag must be populated with one of the allowable values.	Error
2004	Missing or Invalid aggregatedOrders	If populated, aggregatedOrders must be in the correct format.	Error
2005	Missing or Invalid askPrice	When required, askPrice must be in the correct format. Required when askQty is populated.	Error
2006	Missing or Invalid askQty	When required, askQty must be in the correct format. Required askPrice is populated.	Error
2007	Missing or Invalid atsDisplayInd	When required, atsDisplayInd must be one of the allowable values.	Error
2008	Missing or Invalid atsOrderType	When required, atsOrderType must be equal to a unique identifier representing the specific order type provided to CAT by the ATS.	Error
2009	Missing or Invalid bidPrice	When required, bidPrice must be in the correct format; must be populated if bidQty is populated.	Error
2010	Missing or Invalid bidQty	When required, bidQty must be in the correct format; must be populated if bidPrice is populated.	Error
2011	Invalid CATReporterIMID	If populated, CATReporterIMID must be valid for the Event Date and must equal the CATReporterIMID in the filename.	Error
2012	Missing or Invalid cancelQty	cancelQty must be populated in the correct format.	Error
2013	Missing or Invalid cancelFlag	cancelFlag must be populated in the correct format.	Error
2014	Missing or Invalid cancelTimestamp	When required, <i>cancelTimestamp</i> must be in the correct format; must be populated if <i>cancelFlag</i> is True.	Error
2015	Missing or Invalid capacity	capacity must be populated with one of the allowable values.	Error
2017	Missing or Invalid custDspIntrFlag	custDspIntrFlag must be populated with one of the allowable values.	Error
2018	Missing or Invalid deptType	deptType must be populated with one of the allowable values.	Error
2019	Combination of destination and destinationType is Invalid	For Route Events, the following destinationType and destination combinations are required:	Error
	invanu	 If destinationType is 'F' or 'O', the destination must be the IMID of an Industry Member. Must be valid for the Event Date. 	

Error Code	Error Code Description	Explanation	Error/ Warning
		If destinationType is 'E', the destination must be one of the allowable values.	
		If destinationType is 'D', the destination must be one of the allowable values.	
2020	Missing or Invalid destinationType	destinationType must be populated with one of the allowable values.	Error
2021	Missing or Invalid displayPrice	When required, displayPrice must be in the correct format.	Error
2022	Missing or Invalid displayQty	When required, displayQty must be in the correct format.	Error
2023	Missing or Invalid dupROIDCond	dupROIDCond must be populated with one of the allowable values.	Error
2024	Missing or Invalid electronicDupFlag	electronicDupFlag must be populated and is one of the allowable values.	Error
2025	Invalid electronicTimestamp	electronicTimestamp must be in the correct format.	Error
2026	Missing or Invalid errorROEID	errorROEID must be blank when the actionType is 'NEW'; must be populated when actionType is 'RPR'.	Error
2027	Missing or Invalid eventTimestamp	For all applicable events with the exception of Child Orders, eventTimestamp must be in the correct format. If manualFlag is true, eventTimestamp must be reported in increments of at least one second. If manualFlag is false, eventTimestamp must be reported in increments of at least milliseconds.	Error
2028	Combination of exchOriginCode and destinationType is invalid	For Option Order Route events, the following exchOriginCode and destinationType combination are required: If destinationType is not E, exchOriginCode must be blank. If destinationType is E, exchOriginCode must be populated.	Error
2030	Missing or Invalid fillKeyDate	fillKeyDate must be populated in the correct format.	Error
2031	Missing or Invalid firmDesignatedID	When required, <i>firmDesignatedID</i> must be in the correct format and unique among all identifiers from any given Industry Member for each business date.	Error
2032	Missing or Invalid firmROEID	firmROEID must be populated and in the correct format.	Error
2033	Invalid Event Date in the firmROEID	The Event Date portion of the <i>firmROEID</i> must be in the correct format and must equal the date portion of <i>eventTimestamp</i> .	Error
2034	Missing or Invalid fulfillmentID	fulfillmentID must be populated in the correct format.	Error
2035	Missing or Invalid fulfillmentLinkType	fulfillmentLinkType must be populated with one of the allowable values.	Error
2036	Invalid handlingInstructions	handlingInstructions must be in the correct format and must include allowable values. Name and valid paired Value must be provided when applicable.	Error
2037	Invalid infoBarrierID	infoBarrierID must be in the correct format.	Error
2038	Missing or Invalid initiator	initiator must be populated with one of the allowable values.	Error
2039	Missing or Invalid isolnd	When required, isolnd value must be one of the allowable	Error

Error Code	Error Code Description	Explanation	Error/ Warning
		values.	
2040	Missing or Invalid leavesQty	When required, <i>leavesQty</i> must be in the correct format, and must be less than or equal to quantity.	Error
2041	Missing or Invalid manualFlag	When required, manualFlag must be one of the allowable values.	Error
2042	Missing or Invalid manualOrderKeyDate	manualOrderKeyDate must be in the correct format; required if manualOrderID is populated.	Error
2043	Missing or Invalid manualOrderID	manualOrderID must be in the correct format.	Error
2044	Missing or Invalid marketCenterID	When required, marketCenterID must be one of the allowable values.	Error
2045	Invalid minQty	minQty must be in the correct format	Error
2046	Invalid mpStatusCode	mpStatusCode must be one of the allowable values.	Error
2047	Missing or Invalid nbboSource	When required, <i>nbboSource</i> must be one of the allowable values.	Error
2048	Missing or Invalid nbboTimestamp	When required, <i>nbboTimestamp</i> must be in the correct format.	Error
2049	Missing or Invalid nbbPrice	When required, nbbPrice must be in the correct format.	Error
2050	Missing or Invalid nbbQty	When required, nbbQty must be in the correct format.	Error
2051	Missing or Invalid nboPrice	When required, nboPrice must be in the correct format.	Error
2052	Missing or Invalid nboQty	When required, nboQty must be in the correct format.	Error
2053	Missing or Invalid negotiatedTradeFlag	negotiatedTradeFlag must be populated and one of the allowable values.	Error
2054	Missing or Invalid sideDetailsInd	sideDetailsInd must be populated with one of the allowable values.	Error
2056	Missing or Invalid onlyOneQuoteFlag	onlyOneQuoteFlag must be populated with one of the allowable values if required to populate.	Error
2057	Missing or Invalid openCloseIndicator	When required, <i>openCloseIndicator</i> must be one of the allowable values.	Error
2058	Missing or Invalid optionID	optionID must be populated in the correct format.	Error
2060	optionID not valid on Event Date	 optionID is not valid on the event date. For allocation events tradeDate is used. For all other events date portion of eventTimestamp is used. 	Error
2061	Missing or Invalid orderID	orderID must be populated in the correct format.	Error
2062	Missing or Invalid orderType	orderType must be populated one of the allowable values.	Error
2063	Missing or Invalid orderKeyDate	orderKeyDate must be populated and in the correct format.	Error
2064	Missing or Invalid originatingIMID	If populated, <i>originatingIMID</i> must be in the correct format on all secondary events. Must be valid for the Event Date.	Error
2065	Missing or Invalid parentOrderID	parentOrderID must be populated in the correct format.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2066	Missing or Invalid parentOrderKeyDate	parentOrderKeyDate must be populated in the correct format.	Error
2067	Missing or Invalid price	price must be in the correct format.	Error
2068	Missing or Invalid priorFillKeyDate	When required, <i>priorFillKeyDate</i> must be populated and in the correct format.	Error
2070	Missing or Invalid priorFulfillmentID	When required, priorFulfillmentID must be in the correct format.	Error
2071	Missing or Invalid priorOrderID	When required, <i>priorOrderID</i> must be populated in the correct format.	Error
2072	Missing or Invalid priorOrderKeyDate	When required, <i>priorOrderKeyDate</i> must be populated in the correct format.	Error
2073	Missing or Invalid priorQuoteKeyDate	When required, <i>priorQuoteKeyDate</i> must be populated in the correct format.	Error
2074	Missing or Invalid priorQuoteID	When required, <i>priorQuoteID</i> must be populated and must be in the correct format.	Error
2076	Missing or Invalid quantity	quantity must be in the correct format.	Error
2077	Missing or Invalid quoteID	quoteID must be populated in the correct format.	Error
2078	Missing or Invalid quoteKeyDate	quoteKeyDate must be populated and in the correct format.	Error
2080	Missing or Invalid quoteRejectedFlag	When required, <i>quoteRejectedFlag</i> must be populated in one of the allowable values.	Error
2081	Missing or Invalid receivedQuoteID	receivedQuoteID must be populated in the correct format.	Error
2082	Missing or Invalid receiverIMID	receiverIMID must be populated in the correct format. Must be valid for the Event Date.	Error
2083	Missing or Invalid receivingDeskType	receivingDeskType must be populated in one of the allowable values.	Error
2084	Invalid reportingExceptionCode	reportingExceptionCode must be one of the allowable values.	Error
2085	Missing or Invalid representativeInd	representativeInd must be populated in one of the allowable values.	Error
2086	Invalid routedOrderID	routedOrderID must be populated in the correct format.	Error
2087	Invalid routedQuoteID	When required, <i>routedQuoteID</i> must be populated in the correct format.	Error
2088	Invalid routeRejectedFlag	routeRejectedFlag must be one of the allowable values.	Error
2089	Combination of senderType and senderIMID is invalid	If senderType = F or O, senderIMID is the IMID of an Industry Member. If senderType = E, senderIMID must be one of the allowable values.	Error
2090	Missing or Invalid senderType	When required, senderType must be one of the allowable values.	Error
2091	Missing or Invalid senderIMID	When required, senderIMID must be populated in the correct format. Must be valid for the Event Date.	Error
2092	Missing or Invalid seqNum	When required, seqNum must be in the correct format.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2093	Missing or Invalid session	When required, session must be populated. Required when destinationType is 'E' or 'D'.	Error
2095	Missing or Invalid side	side must be populated in one of the allowable values as defined in Appendix G: Data Dictionary.	Error
2096	Missing or Invalid symbol	symbol must be populated in the correct format.	Error
2098	symbol not valid on Event Date	 symbol is not valid on the event date. For allocation events tradeDate is used. For all other events date portion of eventTimestamp is used. 	Error
2099	symbol does not match listing market format	For exchange listed securities, the <i>symbol</i> format must match the format published by the primary listing market.	Error
2100	Missing or Invalid tapeTradeID	When required, <i>tapeTradeID</i> must be populated. When populated, <i>tapeTradeID</i> must be in the correct format.	Error
2101	Missing or Invalid timeInForce	timeInForce value must be populated with a valid Value in the correct format. Name and Value must be provided when applicable.	Error
2102	Missing or Invalid tradeID	tradeID must be populated in the correct format.	Error
2103	Missing or Invalid tradeKeyDate	tradeKeyDate must be populated in the correct format.	Error
2104	Missing or Invalid tradingSession	tradingSession must be populated in one of the allowable values.	Error
2105	Missing or Invalid type	For each event type, <i>type</i> must be populated and one of the allowable values.	Error
2106	Missing or Invalid unsolicitedInd	unsolicitedInd must be populated in one of the allowable values.	Error
2107	Invalid workingPrice	When provided, workingPrice must be populated in the correct format. workingPrice must be blank if atsDisplayInd is blank. When required, workingPrice must be populated in the correct format if atsDisplayInd is populated. If no workingPrice is applicable, it must be 0.	Error
2108	Missing or Invalid buyDetails	If sideDetailsInd = BUY, buyDetails must be populated. If sideDetailsInd = SELL, buyDetails must not be populated.	Error
2109	Missing or Invalid <i>orderID</i> in <i>buyDetails</i>	When required, orderID must be populated in the correct format.	Error
2110	Missing or Invalid orderKeyDate in buyDetails	When required, orderKeyDate must be populated in the correct format.	Error
2111	Missing or Invalid side in buyDetails	side must be populated in the correct format.	Error
2112	Missing or Invalid firmDesignatedID in buyDetails	When required, <i>firmDesignatedID</i> must be populated in the correct format.	Error
2113	Missing or Invalid accountHolderType in buyDetails	When required, accountHolderType must be one of the allowable values.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2114	Invalid combination of firmDesignatedID and orderID in buyDetails	When required, the combination of firmDesignatedID and orderID in buyDetails must be valid. See Table 49: Trade Side Details for more details.	Error
2115	Missing or Invalid sellDetails	If sideDetailsInd = SELL, sellDetails must be populated. If sideDetailsInd = BUY, sellDetails must not be populated.	Error
2116	Missing or Invalid orderID in sellDetails	When required, orderID must be populated in the correct format.	Error
2117	Missing or Invalid orderKeyDate in sellDetails	When required, orderKeyDate must be populated in the correct format.	Error
2118	Missing or Invalid side in sellDetails	side must be populated in the correct format.	Error
2119	Missing or Invalid firmDesignatedID in sellDetails	When required, firmDesignatedID must be populated in the correct format.	Error
2120	Missing or Invalid accountHolderType in sellDetails	When required, accountHolderType must be populated in the correct format.	Error
2121	Missing or Invalid orderID in clientDetails	orderID must be populated in the correct format.	Error
2122	Missing or Invalid orderKeyDate in clientDetails	orderKeyDate must be populated in the correct format.	Error
2123	Missing or Invalid side in clientDetails	side must be populated in the correct format.	Error
2124	Invalid firmDesignatedID in clientDetails	firmDesignatedID must be blank.	Error
2125	Invalid accountHolderType in clientDetails	accountHolderType must be blank.	Error
2126	Missing or Invalid orderID in firmDetails	When required, <i>orderID</i> must be populated and in the correct format.	Error
2127	Missing or Invalid orderKeyDate in firmDetails	When required, orderKeyDate must be populated in the correct format.	Error
2128	Missing or Invalid side in firmDetails	side must be populated and in the correct format.	Error
2129	Missing or Invalid firmDesignatedID in firmDetails	When required, firmDesignatedID must be in the correct format.	Error
2130	Missing or Invalid accountHolderType in firmDetails	When required, accountHolderType must be one of the allowable values.	Error
2132	Record exceeds maximum length	Record length must not exceed the maximum length for each record.	Error
2133	Additional fields are specified in the record but are not defined for this CAT event type	Refer to Sections 3.4 & 4.14 for permitted fields for each CAT event type.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2134	Invalid JSON or CSV format	The record is not represented in a valid format as specified in Section 2.5 Data Types.	Error
2136	Invalid Alphanumeric Character	A field value in the record contains a delimiter or a non-allowable ASCII character	Error
2137	Invalid correction, deletion or a repair	actionType 'COR', 'RPR' or 'DEL' is received for a firmROEID or an errorROEID that does not exist in CAT.	Error
2139	eventTimestamp is greater than the current date and time	The eventTimestamp is greater than system date.	Error
2142	Invalid combination of aggregatedOrders and representativeInd	The combination of aggregatedOrders and representativeInd must be valid. See Appendix C for more details on reporting representative and combined orders.	Error
2143	Invalid combination of electronicDupFlag and manualFlag	The combination of <i>electronicDupFlag</i> and <i>manualFlag</i> must be valid. See <u>Section 3.2.2</u> for more details.	Error
2144	Invalid combination of electronicTimestamp and manualFlag	The combination of <i>electronicTimestamp</i> and <i>manualFlag</i> must be valid. See <u>Section 3.2.2</u> for more details.	Error
2145	Invalid combination of fulfillmentLinkType and firmDetails	The combination of <i>fulfillmentLinkType</i> and <i>firmDetails</i> must be valid. See <u>Appendix C</u> for more details on reporting representative and combined orders.	Error
2146	Missing or Invalid clientDetails	clientDetails must be populated in the correct format.	Error
2147	Missing or Invalid firmDetails	firmDetails must be populated in the correct format.	Error
2148	Invalid combination of firmDesignatedID and orderID in sellDetails	When required, the combination of firmDesignatedID and orderID in sellDetails must be valid. See Table 49: Trade Side Details for more details.	Error
2149	CATReporterIMID and senderIMID must be assigned to the same firm	CATReporterIMID and senderIMID must be assigned to the same firm.	Error
2150	CATReporterIMID and receiverIMID must be assigned to the same firm	CATReporterIMID and receiverIMID must be assigned to the same firm.	Error
2151	Retired Error Code	Error code has been retired and may no longer be used.	Error
2153	Data File is not Readable	Data File format is not readable as it contains an invalid compression format.	Error
2154	Invalid quoteWantedInd	When required, <i>quoteWantedInd</i> must be populated in one of the allowable values.	Error
2156	Invalid reservedForFutureUse	reservedForFutureUse must not be populated.	Error
2157	Invalid <i>quantity</i> in buyDetails	If populated, <i>quantity</i> in <i>buyDetails</i> must be in the correct format.	Error
2158	Invalid <i>originatingIMID</i> in buyDetails	If populated, <i>originatingIMID</i> in <i>buyDetails</i> must be in the correct format.	Error
2159	Invalid <i>quantity</i> in	If populated, <i>quantity</i> in <i>sellDetails</i> must be in the correct format.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
	sellDetails		
2160	Invalid <i>originatingIMID</i> in sellDetails	If populated, <i>originatingIMID</i> in <i>sellDetails</i> must be in the correct format.	Error
2161	Invalid <i>quantity</i> in <i>clientDetails</i>	If populated, <i>quantity</i> in <i>clientDetails</i> must be in the correct format.	Error
2162	Invalid <i>originatingIMID</i> in <i>clientDetails</i>	If populated, <i>originatingIMID</i> in <i>clientDetails</i> must be in the correct format.	Error
2163	Invalid <i>quantity</i> in <i>firmDetails</i>	If populated, <i>quantity</i> in <i>firmDetails</i> must be in the correct format.	Error
2164	Invalid <i>originatingIMID</i> in <i>firmDetails</i>	If populated, <i>originatingIMID</i> in <i>firmDetails</i> must be in the correct format	Error
2165	Missing or Invalid orderID in aggregatedOrders	When required, orderID in aggregatedOrders must be populated in the correct format.	Error
2166	Missing or Invalid orderKeyDate in aggregatedOrders	When required, orderKeyDate in aggregatedOrders must be populated in the correct format.	Error
2167	Invalid <i>quantity</i> in aggregatedOrders	If populated, <i>quantity</i> in <i>aggregatedOrders</i> must be in the correct format.	Error
2168	Invalid <i>originatingIMID</i> in aggregatedOrders	If populated, <i>originatingIMID</i> in <i>aggregatedOrders</i> must be in correct format.	Error
2169	Invalid combination of reportingExceptionCode and tapeTradeID	The combination of reportingExceptionCode and tapeTradeID must be valid. Refer to Section 4.11 Trade for more details.	Error
2170	Missing or Invalid allocationKeyDate	allocationKeyDate must be populated in the correct format.	Error
2171	Missing or Invalid allocationID	allocationID must be populated in the correct format.	Error
2172	Missing or Invalid priorAllocationKeyDate	When required, <i>priorAllocationKeyDate</i> must be populated in the correct format.	Error
2173	Missing or Invalid priorAllocationID	When required, <i>priorAllocationID</i> must be populated and must be in the correct format.	Error
2175	Missing or Invalid institutionFlag	institutionFlag must be populated with one of the allowable values	Error
2176	Missing or Invalid tradeDate	tradeDate must be populated in the correct format.	Error
2177	Missing or Invalid settlementDate	settlementDate must be populated in the correct format.	Error
2178	Missing or Invalid allocationType	allocationType must be populated with one of the allowable values	Error
2179	Missing or Invalid DVPCustodianID	When required, <i>DVPCustodianID</i> must be populated in the correct format.	Error
2180	Invalid correspondentCRD	If populated, correspondentCRD must be populated in the correct format.	Error
2181	Invalid newOrderFDID	If populated, newOrderFDID must be populated in the correct format.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2182	Invalid allocationInstructionTime	If populated, allocationInstructionTime must be in the correct format.	Error
2184	Invalid combination of clearingFirm and reportingExceptionCode	Combination of <i>clearingFirm</i> and <i>reportingExceptionCode</i> must be valid.	Error
2185	Invalid combination of counterparty and reportingExceptionCode	Combination of <i>counterparty</i> and <i>reportingExceptionCode</i> must be valid.	Error
2186	Missing or Invalid solicitationFlag	solicitationFlag must be populated with one of the allowable values	Error
2187	Invalid RFQID	If populated, RFQID must be in the correct format.	Error
2188	Missing or Invalid unpricedInd	unpricedInd must be populated with one of the allowable values	Error
2189	Invalid combination of senderIMID and destination or receiverIMID	On Order Route or New Quote events, senderIMID must not equal destination. On Order Accepted, Order Modified, and Quote Received events, senderIMID must not equal receiverIMID.	Error
2190	Invalid combination of orderID and parentOrderID or priorOrderID	If populated, the combination of parentOrderID and parentOrderKeyDate or priorOrderID and priorOrderKeyDate must not equal the combination of orderID and orderKeyDate.	Error
2191	Invalid combination of orderID and orderID in aggregatedOrders	If populated, the combination of orderID and orderKeyDate must not equal any combination of orderID and orderKeyDate within the aggregatedOrders field.	Error
2192	Invalid triggerPrice	If populated, triggerPrice must be in the correct format.	Error
2200	Missing or Invalid legDetails	legDetails must be populated in correct format.	Error
2201	Invalid legRefID in legDetails	When populated, legRefID must be in correct format.	Error
2202	Missing or Invalid legRatioQuantity in legDetails	legRatioQuantity must be populated in correct format.	Error
2203	Missing or Invalid numberOfLegs	numberOfLegs must be populated in correct format.	Error
2204	Invalid pairedOrderID	If populated, pairedOrderID must be in correct format.	Error
2205	Invalid requestTimestamp	If populated, requestTimestamp must be in correct format.	Error
2206	Missing or Invalid multiLegInd	multiLegInd must be populated with one of the allowable values.	Error
2207	Invalid retiredFieldPosition	retiredFieldPosition must not be populated.	Error
2208	Invalid priorRoutedOrderID	When required, <i>priorRoutedOrderID</i> must be populated in correct format.	Error
2209	Invalid combination of routedOrderID and priorRoutedOrderID	If populated, the <i>routedOrderID</i> and <i>priorRoutedOrderID</i> must not be equal.	Error
2210	Invalid underlying	If populated, <i>underlying</i> must be valid for the Event Date and in correct format.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
2211	Invalid netPrice	If populated, netPrice must be valid and in correct format	Error
2212	Retired Error Code	Error code has been retired and may no longer be used.	
2213	Invalid combination of symbol and optionID fields in legDetails	In <i>legDetails</i> , the combination of <i>symbol</i> and <i>optionID</i> must be valid.	Error
2214	Invalid openCloseIndicator in legDetails	If populated, <i>openCloseIndicator</i> in <i>legDetails</i> must be populated with an allowable value.	Error
2215	Invalid side in legDetails	side in legDetails must be populated with an allowable value.	Error
2216	Missing or Invalid priceType	When required, <i>priceType</i> must be populated with an allowable value.	Error
2217	Missing or Invalid destination	When required <i>destination</i> must be populated with a valid IMID.	Error
2218	Missing or Invalid occClearingMemberID	When required, occClearingMemberID must be populated in the correct format.	Error
2221	Invalid combination of symbol and openCloseIndicator fields in legDetails	openCloseIndicator in legDetails must not be populated when symbol in legDetails is populated.	Error
2222	Invalid <i>clearingFirm</i>	When required, <i>clearingFirm</i> must be populated in the correct format.	Error
2223	Invalid combination of orderID and firmDesignatedID in firmDetails	firmDesignatedID in firmDetails must not be populated when orderID in firmDetails is populated or vice versa.	Error
2224	Invalid symbol in legDetails	 symbol in legDetails not valid on the Event Date. For allocation events tradeDate is used. For all other events date portion of eventTimestamp is used. 	Error
2225	Invalid optionID in legDetails	 optionID in legDetails not valid on the Event Date. For allocation events tradeDate is used. For all other events date portion of eventTimestamp is used. 	Error
2226	Invalid combination of <i>price</i> and <i>netPrice</i>	price must be blank or zero when netPrice is populated.	Error
2227	Invalid combination of orderID in buyDetails and sellDetails	When <u>both</u> buyDetails.orderID and sellDetails.orderID are provided, they must not be the same.	Error
2228	Invalid combination of orderID in firmDetails and clientDetails	firmDetails.orderID and clientDetails.orderID must not be the same.	Error
2229	Invalid deskOrderID	When provided, deskOrderID must be in correct format.	Error
2230	Invalid priorDeskOrderID	When provided, <i>priorDeskOrderID</i> must be in correct format and must not be equal to <i>deskOrderID</i> .	Error
2231	Invalid representativeQuoteInd	When provided, representativeQuoteInd must be populated in one of the allowable values.	Error
2232	Missing or Invalid	When required, askAggregatedOrders must be provided and in	Error

	askAggregatedOrders	correct format.	
2233	Missing or Invalid orderID in askAggregatedOrders	orderID in askAggregatedOrders must be populated in the correct format.	Error
2234	Missing or Invalid orderKeyDate in askAggregatedOrders	orderKeyDate in askAggregatedOrders must be populated in the correct format.	Error
2235	Invalid <i>quantity</i> in askAggregatedOrders	If populated, <i>quantity</i> in <i>askAggregatedOrders</i> must be in the correct format.	Error
2236	Invalid <i>originatingIMID</i> in askAggregatedOrders	If populated, <i>originatingIMID</i> in <i>askAggregatedOrders</i> must be in correct format.	Error
2237	Invalid combination of representativeQuoteInd and askAggregatedOrders	The combination of askAggregatedOrders and representativeQuoteInd must be valid.	Error
2238	Missing or Invalid bidAggregatedOrders	When required, bidAggregatedOrders must be provided and in correct format	Error
2239	Missing or Invalid orderID in bidAggregatedOrders	When required, orderID in bidAggregatedOrders must be populated in the correct format.	Error
2240	Missing or Invalid orderKeyDate in bidAggregatedOrders	When required, orderKeyDate in bidAggregatedOrders must be populated in the correct format.	Error
2241	Invalid <i>quantity</i> in bidAggregatedOrders	If populated, <i>quantity</i> in <i>bidAggregatedOrders</i> must be in the correct format.	Error
2242	Invalid <i>originatingIMID</i> in <i>bidAggregatedOrders</i>	If populated, <i>originatingIMID</i> in <i>bidAggregatedOrders</i> must be in correct format.	Error
2243	Invalid combination of representativeQuoteInd and bidAggregatedOrders	The combination of bidAggregatedOrders and representativeQuoteInd must be valid.	Error
2244	Invalid combination of firmDesignatedID and representativeQuoteInd	The combination of <i>firmDesignatedID</i> and representativeQuoteInd must be valid.	Error
2245	Invalid combination of firmDesignatedID and accountHolderType	The combination of <i>firmDesignatedID</i> and <i>accountHolderType</i> must be valid.	Error
2246	Invalid combination of unsolicitedInd and representativeQuoteInd	The combination of <i>unsolicitedInd</i> and <i>representativeQuoteInd</i> must be valid.	Error
2247	Invalid combination of quantity and 'CASH' handlingInstructions	A quantity value of '0' must be reported for notional orders reported with the 'CASH' handlingInstructions value.	Error
2248	Retired Error Code	Error code has been retired and may no longer be used.	
2249	Missing or invalid RFQFlag	RFQFlag must be populated in the correct format.	Error
2250	Missing or invalid quotePriceType	When provided, <i>quotePriceType</i> must be populated with an allowable value.	Error
2251	Retired Error Code	Error code has been retired and may no longer be used.	
2252	Retired Error Code	Error code has been retired and may no longer be used.	
2253	Retired Error Code	Error code has been retired and may no longer be used.	
	1		1

	askRelativePrice	allowable value.	
2255	Missing or Invalid bidRelativePrice	When provided, bidRelativePrice must be populated with an allowable value.	Error
2256	Missing or Invalid validUntilDuration	When provided, <i>validUntilDuration</i> must be populated with an allowable value	Error
2257	Invalid combination of RFQFlag and RFQID	The combination of <i>RFQFlag</i> and <i>RFQID</i> must be valid.	Error
2258	Invalid combination of capacity and firmDesignatedID in buyDetails	The combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>buyDetails</i> must be valid.	Error
2259	Invalid combination of capacity and firmDesignatedID in sellDetails	The combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>sellDetails</i> must be valid.	Error
2260	Missing or Invalid BFMMFlag	BFMMFlag must be populated with one of the allowable values.	Error
2261	Invalid combination of BFMMFlag and accountHolderType	The combination of <i>BFMMFlag</i> and <i>accountHolderType</i> must be valid.	Error
2262	Invalid combination of BFMMFlag and side	The combination of <i>BFMMFlag</i> and <i>side</i> must be valid.	Error
2801		Reserved	
2802		Reserved	
2803		Reserved	
2999	Exceeds Max Error Limit	The record contains more than 8 errors.	Error

E.3 Linkage Discovery Errors

Linkage Discovery errors are generated by performing event comparisons that result in the identification of duplicates, out of sequence events and unlinked events. To identify duplicate Linkage Keys, the CAT Processor will ensure the *CAT Linkage Keys*, as defined in <u>Section 2.6.1</u>, are not repeated.

Unlinked error codes are assigned based on a processing order when determining the reason for an unlinked event. The process begins with the check associated with the codes having the lowest sequence value. When the "Multiple Fields did not Match" reason is assigned, it is because a determination could not be made. In such cases, it is possible that the unlink reason is because the other party's event was not reported or had a processing error which prevented the event from participating in Linkage Discovery.

In cases when linkage did not occur between venues, separate error codes will be assigned to the CAT Reporter whose record did not link and the CAT Reporter that was named. Error Code Descriptions that begin with "Named" indicate when the CAT Reporter was named in a record submitted by another CAT Reporter (Industry Member, Exchange or TRF/ADF/ORF) that is unlinked. Refer to CAT Alert 2019-04 for additional information on named linkage errors.

Note: Named Errors for Exchange Trade Linkage breaks (exchange floor trade events where a corresponding MOOT event is missing) are not currently available.

The below tables contain error messages that are associated with Linkage Discovery Errors.

Table 178: Intra-Linkage Errors

Error Code	Error Code Description	Explanation	Error/ Warning
3002	Duplicate firmROEID on same day	Duplicate <i>firmROEID</i> received by CAT; must be unique for the Event Date and CAT Reporter IMID. All events containing a duplicate <i>firmROEID</i> on the same day will be rejected.	Error
3003	Duplicate <i>firmROEID</i> on a prior processing day	One or more events were reported with the same <i>firmROEID</i> as an event reported on a previous day. All events received on the current CAT Processing Date associated with the duplicate <i>firmROEID</i> will be rejected. The events received on a previous day associated with the duplicate <i>firmROEID</i> will not be rejected.	Error
3004	Duplicate Order Key reported on same day	More than one primary order event and/or secondary order event which reassigned an Order Key was reported with the same Order Key on the current CAT Processing Date. All events associated with the duplicate Order Key will be rejected.	Error
3007	Duplicate Order Key reported on a prior processing day	One or more primary order events and/or secondary order event which reassigned an Order Key were reported that have the same Order Key as an order reported on a previous day. All events received on the current CAT Processing Date associated with the duplicate Order Key will be rejected. The	Error

Error Code	Error Code Description	Explanation	Error/ Warning
		events received on a previous day associated with the duplicate Order Key will not be rejected.	
3010	Duplicate Trade Key reported on same day	More than one Trade event was reported with the same Trade Key on the current CAT Processing Date. All events associated with the duplicate Trade Key will be rejected.	Error
3011	Duplicate Trade Key reported on prior processing day	One or more Trade events were reported with the same Trade Key as an event reported on a previous day. All events received on the current CAT Processing Date with a duplicate Trade Key will be rejected. The events received on a previous day associated with the duplicate Trade Key will not be rejected.	Error
3012	Duplicate Fulfillment Key reported on same day	More than one Order Fulfillment events or Fulfillment Amendment events which assigned a new Fulfillment key were reported with the same Fulfillment Key on the current CAT Processing Date. All events with a duplicate Fulfillment Key will be rejected.	Error
3015	Duplicate Fulfillment Key reported on prior processing day	One or more Order Fulfillment events or Fulfillment Amendment events which assigned a new Fulfillment key were reported with the same Fulfillment Key as an event reported on a previous day. All events received on the current CAT Processing Date associated with the duplicate Fulfillment Key will be rejected. The events received on a previous day with a duplicate Fulfillment Key will not be rejected.	Error
3016	Duplicate Quote Key reported on same day	More than one New Quote, Quote Received or Quote Modified event which reassigned a quote key were reported with the same Quote Key on the current CAT Processing Date. All events associated with the duplicate Quote Key will be rejected.	Error
3017	Duplicate Quote Key reported on prior processing day	One or more New Quote, Quote Received or Quote Modified events which reassigned a quote key were reported that have the same Quote Key as an event reported on a previous day. All events received on the current CAT Processing Date associated with the duplicate Quote Key will be rejected. The events received on a previous day associated with the duplicate Quote Key will not be rejected.	Error
3020	Duplicate Allocation Key reported on same day	More than one Post-Trade Allocation event or Amended Allocation event which assigned a new Allocation Key were reported with the same Allocation Key on the current CAT Processing Date. All events associated with the duplicate Allocation Key will be rejected.	Error
3021	Duplicate Allocation Key reported on prior processing day	One or more Post-Trade Allocation events or Amended Allocation events which assigned a new Allocation Key were reported that have the same Allocation Key as an event reported on a previous day. All events received on the current CAT Processing Date associated with the duplicate Allocation Key will be rejected. The events received on a previous day associated with the duplicate Allocation Key will not be rejected.	Error
3501	Secondary Event – Order Key, Trade Key, Quote Key, Fulfillment Key, or Allocation Key not found	The Secondary Event (as defined in Appendix F) references an Order Key, Trade Key, Quote Key, Fulfillment Key, or Allocation Key that does not exist in CAT because it was not reported or was rejected.	Error

Error Code	Error Code Description	Explanation	Error/ Warning
3502	Trade Event –Order not found	The Trade Event side details reference an Order Key that does not exist in CAT because it was not reported or was rejected.	Error
3503	Fulfillment Event –Order not found	The Fulfillment Event side details reference an Order Key that does not exist in CAT because it was not reported or was rejected.	Error
3504	Aggregated Order – Customer/Client order not found	Aggregated order references an Order Key that does not exist in CAT because it was not reported or was rejected.	Error
3505	Electronic Duplicate Order – Manual order not found	Electronic duplicate order references a Manual Order Key that does not exist in CAT because it was not reported or was rejected.	Error
3601	Intrafirm Out of Sequence Event	eventTimestamp of a Secondary Event (as defined in Appendix F) is prior to the eventTimestamp of the related Primary Event (as defined in Appendix F).	Error
		When comparing <i>eventTimestamp</i> , the Clock Drift allowance as specified in <u>Appendix B</u> must be considered.	
3602	Mismatched eventTimestamp on the Order/Modification/Trade/Fulfillment supplement event	eventTimestamp on the Order/Modification/Trade/Fulfillment supplement event did not match the eventTimestamp on the corresponding Order/Modification/Trade/Fulfillment event. Timestamp compared up to milliseconds.	Error
3603	Order Route event –quoteID not found	The IDQS Linkage Key in the Order Route event references a quoteID that does not exist in CAT because it was not reported or was rejected.	Error
3701	firmDesignatedID not found	firmDesignatedID does not exist in CAIS for the CAT Reporter.	Error
3702	firmDesignatedID not valid on Event Date	firmDesignatedID is not valid in CAIS for the CAT Reporter for the event date. For all events, the Event Date is used. For allocation events, in addition to the Event Date, the tradeDate is used.	Error
3703	firmDesignatedID in buyDetails not found	firmDesignatedID does not exist in CAIS for the CAT Reporter.	Error
3704	firmDesignatedID in buyDetails not valid on Event Date	firmDesignatedID is not valid in CAIS for the CAT Reporter for the event date (i.e., the date portion of eventTimestamp).	Error
3705	firmDesignatedID in sellDetails not found	firmDesignatedID does not exist in CAIS for the CAT Reporter.	Error
3706	firmDesignatedID in sellDetails not valid on Event Date	firmDesignatedID is not valid in CAIS for the CAT Reporter on the event date (i.e., the date portion of eventTimestamp).	Error
3707	firmDesignatedID in firmDetails not found	firmDesignatedID does not exist in CAIS for the CAT Reporter.	Error
3708	firmDesignatedID in firmDetails not valid on Event Date	firmDesignatedID is not valid in CAIS on the event date (i.e., the date portion of eventTimestamp).	Error
3709	newOrderFDID not found	correspondentCRD is not populated or is equal to the CAT Reporter ID and newOrderFDID does not exist in CAIS for the CAT Reporter.	Error
3710	newOrderFDID not valid on tradeDate	correspondentCRD is not populated or is equal to the CAT Reporter ID and newOrderFDID is not valid in CAIS for the CAT Reporter on the tradeDate.	Error

Table 179: Trade Linkage Error Codes (Reported to CAT)

Error Code	Error Code Description	Explanation	Error/ Warning
4003	Matching <i>tapeTradeID</i> cannot be found	The <i>tapeTradeID</i> reported on a Trade event did not match the unique identifier (e.g., Branch Sequence Number, Compliance ID) provided on the TRF/ADF/ORF Trade Report.	Error
4005	marketCenterID cannot be found	The marketCenterID reported on the Trade event did not match the Market Center ID on the TRF/ADF/ORF trade report.	Error
4007	symbol cannot be found	The symbol reported on the Trade event did not match the symbol on the TRF/ADF/ORF trade report.	Error
4009	Multiple fields did not match	A TRF/ADF/ORF Trade Report with a matching unique identifier (i.e. Branch Sequence Number) was found; however, the <i>symbol</i> , <i>CATReporterIMID</i> or a combination of fields reported on the Trade event did not match the corresponding symbol or reporting/contra firm on the TRF/ADF/ORF Trade Report.	Error
4011	Duplicate TRF Linkage Key	Unlinked due to duplicated TRF Linkage Key.	Error
4013	CATReporterIMID cannot be found	The CATReporterIMID used to report the Trade event did not match the Reporting Execution or Contra Execution MPID on the TRF/ADF/ORF trade report.	Error

Table 180: Trade Linkage Error Codes (Reported to TRF/ADF/ORF)

Error Code	Error Code Description	Explanation	Error/ Warning
5004	Named - Matching tapeTradeID cannot be found	Named on a TRF/ADF/ORF Trade Report, but the <i>tapeTradeID</i> on the Trade event did not match the unique identifier (e.g., Branch Sequence Number, Compliance ID) on the corresponding TRF/ADF/ORF Trade Report.	Error
5006	Named - marketCenterID cannot be found	Named on a TRF/ADF/ORF Trade Report, but the <i>marketCenterID</i> reported on the Trade event did not match the Market Center ID on the corresponding Trade event.	Error
5008	Named - symbol cannot be found	Named on a TRF/ADF/ORF Trade Report, but the symbol reported on the Trade event did not match the symbol on the TRF/ADF/ORF Trade Report.	Error
5010	Named - Multiple fields did not match	Named on a TRF/ADF/ORF Trade Report and a matching tapeTradeID on the CAT Trade Event was found; however, the symbol, CATReporterIMID or a combination of fields reported on the Trade event did not match the corresponding symbol or reporting/contra firm on the TRF/ADF/ORF Trade Report.	Error
5014	Named - CATReporterIMID cannot be found	Named on a TRF/ADF/ORF Trade Report, but the <i>CATReporterIMID</i> reported on the Trade event did not match the Reporting Execution or Contra Execution MPID on the corresponding Trade Report.	Error

Table 181: Exchange/Display-Only Facility Linkage Error Codes (Reported by Industry Member)

Error Code	Error Code Description	Explanation	Error/ Warning
6003	Matching routedOrderID/routedQuoteID cannot be found	The routedOrderID/routedQuoteID reported on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event does not match to a corresponding routedOrderID on the exchange order or Display-Only Facility Equity BBO event.	Error
6005	senderIMID did not match	A matching <i>routedOrderID/routedQuoteID</i> was identified on the exchange order; however, the <i>senderIMID</i> on the Order Route/Route Modified or Order Accepted/Order Modified/Routed Quote event did not match the corresponding <i>routingParty</i> on the exchange order or Display-Only Facility Equity BBO event.	Error
6007	Symbol/optionID did not match	A matching routedOrderID/routedQuoteID was identified in the exchange order or Display-Only Facility Equity BBO event; however, the symbol/optionID on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event did not match the corresponding symbol/optionID on the exchange order or Display-Only Facility Equity BBO event.	Error
6009	session did not match	A matching routedOrderID/routedQuoteID was identified on the exchange order or Display-Only Facility Equity BBO event; however, the session on the Order Route or Route Modified/Routed Quote event did not match the session on the exchange order or Display-Only Facility Equity BBO event.	Error
6011	Multiple fields did not match	A matching routedOrderID/routedQuoteID was identified on the exchange order or Display-Only Facility Equity BBO event; however, the symbol/optionID, senderIMID, or a combination of fields reported on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event did not match the corresponding symbol/optionID, routingParty or a combination of fields on the exchange order or Display-Only Facility Equity BBO event.	Error
6013	Duplicate Route Linkage Key on Route or Route Modified to Exchange	Unlinked due to duplicated Route Linkage Key on a Route/Routed Quoted or Route Modified event to an Exchange or Display-Only Facility Equity BBO event.	Error
6015	Duplicate Route Linkage Key on Order Accepted or Modification from Exchange	Unlinked due to duplicated Route Linkage Key on an Order Accepted or Modification received from an Exchange.	Error
6017	destination did not match	A matching routedOrderID/routedQuoteID was identified on the exchange order or Display-Only Facility Equity BBO event; however, the destination on the Order Route/Routed Quote or Route Modified event did not match the exchange ID on the exchange order or the applicable identifier of the Display-Only Facility.	Error
6019	receiverIMID did not match	A matching <i>routedOrderID</i> was identified on the exchange order; however, the <i>receiverIMID</i> on the Order Accepted or Order Modified event did not match the exchange ID on the exchange order	Error

Table 182: Exchange Trade Linkage Error Codes (Reported by Industry Member)

Error Code	Error Code Description	Explanation	Error/ Warning
6021	tapeTradeID did not match	The <i>tapeTradeID</i> reported on a Trade event did not match the unique identifier (e.g., MOOTLINK) provided in the exchange OT.	Error
6023	marketCenterID did not match	A matching <i>tapeTradeID</i> was identified on the exchange OT; however, the <i>marketCenterID</i> reported on the Trade event did not match the exchange ID on the exchange OT	Error
6025	side in buyDetails did not match	A matching <i>tapeTradeID</i> was identified on the exchange OT; however, the <i>side</i> reported in the <i>buyDetails</i> of the Trade event did not match the <i>side</i> on the exchange OT	Error
6027	side in sellDetails did not match	A matching <i>tapeTradeID</i> was identified on the exchange OT; however, the <i>side</i> reported in the <i>sellDetails</i> of the Trade event did not match the <i>side</i> on the exchange OT	Error
6029	Duplicate Exchange Trade Linkage Key	Unlinked due to duplicated Exchange Trade Linkage Key.	Error

Table 183: Exchange/Display-Only Facility Linkage Error Codes (Reported by Exchange/Display-Only Facility)

Error Code	Error Code Description	Explanation	Error/ Warning
7004	Named - Matching routedOrderID/routedQuoteID cannot be found	Named on an exchange order/Display-Only Facility Equity BBO event, but the <i>routedOrderID/routedQuoteID</i> reported on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event does not match to a corresponding <i>routedOrderID</i> on the exchange order or Display-Only Facility Equity BBO event.	Error
7006	Named - senderIMID did not match	Named on an exchange order/Display-Only Facility Equity BBO event with a matching routedOrderID/routedQuoteID identified on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the senderIMID on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event did not match the routingParty reported on the corresponding exchange order/Display-Only Facility Equity BBO event.	Error
7008	Named – symbol/optionID did not match	Named on an exchange order/Display-Only Facility Equity BBO event with a matching routedOrderID/routedQuoteID identified on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the symbol/optionID on the Order Route/Route Modified or Order Accepted/Order Modified/Routed Quote event did not match the symbol/optionID on the corresponding exchange order/Display-Only Facility Equity BBO event.	Error
7010	Named - session did not match	Named on an exchange order/Display-Only Facility Equity BBO event with a matching routedOrderID/routedQuoteID identified on the Order Route, Route Modified event or Routed Quote event; however, the session on the Order Route, Route Modified event or Routed Quote event did not match the session on the corresponding exchange order/Display-Only Facility Equity BBO event.	Error
7012	Named - Multiple fields did not	Named on an Order Route/Route Modified or Order Accepted/Order Modified/Display-Only Facility Equity BBO	Error

Error Code	Error Code Description	Explanation	Error/ Warning
	match	event with a matching <code>routedOrderID/routedQuoteID</code> identified in the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the <code>symbol/optionID</code> , <code>senderIMID</code> or a combination of fields reported on the Order Route/Route Modified or Order Accepted/Order Modified event did not match the <code>symbol/optionID</code> or <code>routingParty</code> on the corresponding exchange order/Display-Only Facility Equity BBO event.	
7018	Named – <i>destination</i> did not match	Named on an exchange order/Display-Only Facility Equity BBO event with a matching routedOrderID/routedQuoteID identified on the Order Route or Route Modified event; however, the destination reported on the corresponding Order Route or Route Modified event did not match the exchange ID on the corresponding exchange order/Display-Only Facility Equity BBO event.	Error
7020	Named – <i>receiverIMID</i> did not match	Named on an exchange order with a matching routedOrderID identified on the Order Accepted or Order Modified event; however, the receiverIMID reported on the corresponding Order Accepted or Order Modified event did not match the exchange ID on the corresponding exchange order.	Error

Table 184: Interfirm Linkage Error Codes (Sender Reported to CAT)

Error Code	Error Code Description	Explanation	Warning/ Error
8003	Matching routedOrderID/routedQuoteID cannot be found	The routedOrderID/routedQuoteID reported on the Order Route/Route Modified/Routed Quote event does not match to a corresponding routedOrderID/receivedQuoteID on the Order Accepted/Order Modified/Quote Received event.	Error
8004	Named - Matching routedOrderID/receivedQuoteID cannot be found	Named on an Order Route/Route Modified/Routed Quote event, but the <i>routedOrderID/receivedQuoteID</i> reported on the Order Accepted/Order Modified/Quote Received event does not match to a corresponding <i>routedOrderID/routedQuoteID</i> on the Order Route/Route Modified/Routed Quote event.	Error
8005	senderIMID did not match	A matching routedOrderID was identified in the Order Accepted/Order Modified event; however, the senderIMID on the Order Route/Route Modified event did not match the senderIMID on the Order Accepted/Order Modified event.	Error
8006	Named - senderIMID did not match	Named on an Order Route/Route Modified event, but the senderIMID on the Order Accepted/Order Modified event does not match the senderIMID reported on the corresponding Order Route/Route Modified event.	Error
8007	destination did not match	A matching <i>routedOrderID</i> was identified in the Order Accepted/Order Modified event; however, the <i>destination</i> on the Order Route/Route Modified event did not match the <i>receiverIMID</i> on the Order Accepted/Order Modified event.	Error
8008	Named – destination did not match	Named on an Order Route/Route Modified event, but the receiver/IMID on the Order Accepted/Order Modified event does not match the destination reported on the corresponding Order Route/Route Modified event.	Error
8009	symbol/optionID did not match	A matching <i>routedOrderID</i> was identified in the Order Accepted/Order Modified event; however, the <i>symbol/optionID</i> on the Order Route/Route Modified event did not match the <i>symbol/optionID</i> on the Order Accepted/Order Modified event.	Error
8010	Named – symbol/optionID did not match	Named on an Order Route/Route Modified event with a matching routedOrderID identified in the Order Accepted/Order Modified event; however, the symbol/optionID on the Order Accepted/Order Modified event did not match the symbol/optionID on the Order Route/Route Modified event.	Error
8011	Multiple fields did not match	A matching routedOrderID was identified in the Order Accepted/Order Modified event; however, the symbol/optionID, senderIMID, destination, or a combination of fields on the Order Route/Route Modified event did not match the symbol/optionID, senderIMID, or receiverIMID on the Order Accepted/Order Modified event.	Error
8012	Named - Multiple fields did not match	Named on an Order Route/Route Modified event with a matching routedOrderID identified in the Order Accepted/Order Modified event; however, the symbol/optionID, senderIMID, receiverIMID or a combination of fields on the Order Accepted/Order Modified event did not match the corresponding symbol/optionID, senderIMID, or destination on the Order Route/Route Modified event.	Error
8013	Duplicate Route Linkage Key on Route or Route Modified to Industry Member	Unlinked due to duplicated Route Linkage Key on a Route/Route Modified to another Industry Member.	Error

Table 185: Interfirm Linkage Error Codes (Receiver Reported to CAT)

Error Code	Error Code Description	Explanation	Error/ Warning
9003	Matching routedOrderID/receivedQuoteID cannot be found	The routedOrderID/receivedQuoteID reported on the Order Accepted/Order Modified/Quote Received event does not match to a corresponding routedOrderID/routedQuoteID on the Order Route/Route Modified/Routed Quote event.	Error
9004	Named - Matching routedOrderID/routedQuoteID cannot be found	Named on an Order Accepted/Order Modified/Quote Received event, but the <i>routedOrderID/routedQuoteID</i> reported on the Order Route/Route Modified/Routed Quote event does not match to a corresponding <i>routedOrderID/receivedQuoteID</i> on the Order Accepted/Order Modified/Quote Received event.	Error
9005	senderIMID did not match	A matching <i>routedOrderID</i> was identified in the Order Route/Route Modified event; however, the <i>senderIMID</i> on the Order Accepted/Order Modified event did not match the <i>senderIMID</i> on the Order Route/Route Modified event.	Error
9006	Named - senderIMID did not match	Named on an Order Accepted/Order Modified event but the senderIMID reported on the Order Route/Route Modified does not match to a corresponding senderIMID on the Order Accepted/Order Modified event.	Error
9007	receiverIMID did not match	A matching <i>routedOrderID</i> was identified in the Order Route/Route Modified event; however, the <i>receiverIMID</i> on the Order Accepted/Order Modified event did not match the <i>destination</i> on the Order Route/Route Modified event.	Error
9008	Named - receiverIMID did not match	Named on an Order Accepted/Order Modified event but the destination reported on the Order Route/Route Modified does not match to a corresponding receiverIMID on the Order Accepted/Order Modified event.	Error
9009	symbol/optionID did not match	A matching <i>routedOrderID</i> was identified in the Order Route/Route Modified event; however, the <i>symbol/optionID</i> on the Order Accepted/Order Modified event did not match the <i>symbol/optionID</i> on the Order Route/Route Modified event.	Error
9010	Named – symbol/optionID did not match	Named on an Order Accepted/Order Modified event with a matching routedOrderID identified in the Order Route/Route Modified event; however, the symbol/optionID on the Order Route/Route Modified event did not match the symbol/optionID on the Order Accepted/Order Modified event.	Error
9011	Multiple fields did not match	A matching routedOrderID was identified in the Order Route/Route Modified event; however, the symbol/optionID, senderIMID, receiverIMID, receiverIMID, or a combination of fields on the Order Accepted/Order Modified event did not match the corresponding symbol/optionID, senderIMID, or destination on the Order Route/Route Modified event.	Error
9012	Named - Multiple fields did not match	Named on an Order Accepted/Order Modified event with a matching routedOrderID identified in the Order Route/Route Modified event; however, the symbol/optionID, senderIMID, destination or a combination of fields on the Order Route/Route Modified event did not match the corresponding symbol/optionID, senderIMID, receiverIMID or a combination of fields on an Order Accepted/Order Modified event.	Error
9013	Duplicate Route Linkage Key on Order Accepted or Modification received from Industry Member	Unlinked due to duplicated Route Linkage Key on an Order Accepted or Modification received from another Industry Member.	Error

E.4 Warning Error Codes

The tables below contain Warnings that will be included in the Error Feedback Files. Warnings are not required to be repaired. Codes are separated by Linkage type.

Table 186: Intra-Linkage Warnings

Error Code	Error Code Description	Explanation	Error/ Warning
395	Early reported event	firmDesignatedID or newOrderFDID is not found in CAIS because the event is reported to CAT prior to the due date. This warning is not repairable.	Warning
396	Incorrect timeInForce on related Primary event	Secondary event is related to a Primary event that contains an incorrect <i>timeInForce</i> . This Secondary event will receive a 3501 error on T+4 if the <i>timeInForce</i> is not corrected on the Primary event.	Warning
397	Retired Error Code	Error/warning code has been retired and may no longer be used.	Warning
398	Order Key, Trade Key, Quote Key or Fulfillment Key prior to CAT go- live	The Secondary Event (as defined in Appendix F) references an Order Key, Trade Key, Quote Key or Fulfillment Key that does not exist in CAT because it references a date prior to CAT go-live; or The aggregatedOrders field references an Order Key that does not exist in CAT because it references a date prior to CAT go-live.	Warning
399	Duplicate Event	The event has already been received by CAT. The first instance of the event will be retained; all subsequent submissions will be rejected. This rejection is not repairable.	Warning

Table 187: Interfirm Linkage Warnings

Error Code	Error Code Description	Explanation	Error/ Warning
897	Retired Error Code	Error/warning code has been retired and may no longer be used.	Warning

Appendix F: Glossary

Term	Definition
CAT Processing Date	Date representing the set of events reported for a <i>CAT Trading Day</i> . Events reported late to CAT will be assigned the CAT Processing Date reflective of when they were reported. For example, an event, that occurred at 2pm on T which is reported to CAT after T+1 @ 8:00 AM ET and prior to T+2 @ 8:00 AM ET will be assigned CAT Processing Date of T+1.
CAT Reporter IMID	The CAT Reporter IMID is the SRO-assigned identifier that an Industry Member uses to report CAT events. A CAT Reporter may use any SRO-assigned identifier that is valid on the CAT Trading Day for which CAT events are submitted.
CAT Submitter ID	The CAT Submitter ID is the identifier of the CAT Reporting Agent, the entity authorized to submit the files to CAT on behalf of the Industry Member. CAT Reporters may authorize third-parties ("CAT Reporting Agents") to submit data to CAT on their behalf. Each CAT Reporting Agent and CAT Reporter will be assigned a unique CAT Submitter ID. If a CAT Reporter is performing its own submissions, these files will be submitted using its own CAT Submitter ID. If the Submitter is an Industry Member, the CAT Submitter's CRD number. If the Submitter is not an Industry Member and does not have a CRD number (i.e., Service Bureaus), the CAT Submitter ID is the Submitter's Organization ID.
CAT Trading Day	CAT Trading Day for Industry Members is defined as beginning immediately after 4:15:00PM and no fractions of a second Eastern Time on one trade date and ending at exactly 4:15:00PM and no fractions of a second Eastern Time on the next trading date. Weekends or any day that all equities or options national securities exchanges are closed are not considered a CAT Trading Day. Trading Days that close early end 15 minutes after the Market Close.
Client Order	For the purpose of this document, Client Order is defined as an order received from a CAT Reporter.
Customer Order	For the purpose of this document, Customer Order is defined as an order received from a non-CAT Reporter, including non-US broker-dealers.
Display ATS	An ATS that displays subscriber orders outside of the ATS.
Eligible Security	"Eligible Security" includes: (i) all NMS Securities, meaning "any security or class of securities for which transaction reports are collected, processed, and made available pursuant to an effective transaction reporting plan, or an effective national market system plan for reporting transaction in Listed Options"; and (ii) all OTC Equity Securities, meaning "any equity security, other than an NMS Security, subject to prompt last sale reporting rules of a registered national securities association and reported to one of such association's equity trade reporting facilities".
Electronic Capture Time	For manual orders, the timestamp or when the Manual CAT Event was captured electronically in the relevant order handling and execution system of the CAT Reporter.
FDID	FDID is defined in Section 1.1 of the CAT NMS Plan as "a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository."
	See <u>CAT FAQ M2</u> for more information on the prohibition on use of actual account

	numbers. Refer to the <u>CAT Industry Presentation</u> on FDID for additional information.
IMID	An Industry Member Identifier, IMID, is any identifier assigned by an SRO to one of its members and is used as part of the Linkage Key in orders routed between Industry Members. Examples include FINRA MPIDs, Nasdaq MPIDs, NYSE Mnemonics, Cboe EFIDs, and CHX Acronyms.
Manual Event	A non-electronic communication of order/trade/quote/fulfillment-related information for which CAT Reporters must record and report to CAT.
Material Terms of an Order	Includes: the NMS Security or OTC Equity Security symbol; security type; price (if applicable); size (displayed and non-displayed); side (buy/sell); order type; if a sell order, whether the order is long, short, short exempt; open/close indicator (except on transactions in equities); Time in Force (if applicable); if the order is for a Listed Option, option type (put/call), option symbol or root symbol, underlying symbol, strike price, expiration date, and open/close (except on market maker quotations); and any special handling instructions.
Order	The term order shall include: (i) Any order received by a member of a national securities exchange or national securities association from any person; (ii) Any order originated by a member of a national securities exchange or national securities association; or (iii) Any bid or offer.
Paired Option Order	For CAT reporting purposes, a Paired Option Order is defined as an electronic option order that contains both the initial and contra side that is routed as a single message to an exchange for crossing and/or price improvement.
Primary Event	An event that is received or originated by an Industry Member. Primary events include Orders, Trades, Quotes, Fulfillments and Allocations each with a respective Event Key including: Order Key, Trade Key, Quote Key, Quote Route Key, Fulfillment Key and Allocation Key.
	Primary events require the assignment of a unique Key which does not duplicate the Key for other Primary Events with the same Key type. For example, an Order Key will not be compared to a Trade Key for uniqueness. If an Event Key is duplicated, all events having the same Event Key will be rejected.
	Primary events include: MENO, MEOA, MENQ, MEQR, MEOT, MEOF, MONO, MOOA, MONQ, MOQR, MOOF, MOOT, MEPA, MOPA, MLNO, MLOA, MLNQ, and MLQR.
Processing Window	The Processing Window refers to the time period when data validation, linkage and corrections processing occurs prior to the construction of the lifecycle. The Processing Window for an event begins from the time it is reported to CAT and ends on the event's Trade Date + 4 at 8am.
Reportable Event	Includes, but is not limited to, the original receipt or origination, modification, cancellation, routing, execution (in whole or in part) and allocation of an order, and receipt of a routed order
Representative Order	Refer to CAT FAQ F1.
ROE	Reportable Order Event
Secondary Event	Represents an event occurring subsequent to the origination of a Primary Event.
	Secondary events require the assignment of an Event Key which provides linkage to the related Primary event that assigned the Key or to another Secondary event that assigned a new Key.
	Secondary events with event definitions that do not allow for the reassignment of an Event Key must populate the Event Key equal to the related event from which

	the Secondary event originated. Secondary events that are not defined to assign a new Event Key include: MENOS, MEOR, MEMR, MEMRS, MECR, MECRS, MEORS, MEIC, MEIMR, MEICR, MECOC, MEOMR, MEOMS, MEOC, MEOCR, MENQS, MERQ, MERQS, MEQC, MEQS, MEOTS, MEOFS, MONOS, MOOR, MOMR, MOMRS, MOCR, MOCRS, MOORS, MOIC, MOIMR, MOICR, MOCOC, MOOMR, MOOMS, MOOCR, MOOC, MOOFS, MORQ, MOQC, MLOR, MLMR, MLCR, MLIC, MLIMR, MLICR, MLCOC, MLOMR, MLOC, MLOCR, MLOS, MLRQ, and MLQC. Secondary events with event definitions that allow for the reassignment of an Event Key (Order Key, Trade Key, Quote Key, Quote Route Key, Fulfillment Key and Allocation Key) must assign an Event Key that is unique and does not duplicate the Event Key of any other Primary event or of any Secondary event which has assigned a new Event Key. When a new Event Key is assigned, the Prior Key representing the Event Key that is being replaced must be populated. Secondary events with event definitions that allow for the reassignment of an Event Key include: MEIR, MEIM, MECO, MECOM, MEOM, MEOJ, MEQM, MEFA, MEAA, MEOE, MOIR, MOIM, MOCO, MOCOM, MOOM, MOQM, MOOJ, MOFA, MOAA, MOOE, MLIR, MLIM, MLCO, MLCOM, MLOM, MLQM, and MLOE. Secondary events with event definitions that allow for the reassignment of an
	Event Key are not required to assign a new Event Key. In such cases, when reported, the Event Key must be equal to the related event from which the Secondary event originated.
Simple Electronic Option Orders	Orders to buy or sell a single option that are not related to or dependent on any other transaction for pricing or timing of execution that are either received or routed electronically by an Industry Member CAT Reporter.
	Electronic receipt of an order is defined as the initial receipt of an order by an Industry Member in electronic form in standard format directly into an order handling or execution system. Electronic routing of an order is the routing of an order via electronic medium in standard format from one Industry Member's order handling or execution system to an exchange or another Industry Member.
Trading Algorithm	A computer program which receives an order and typically parameters for execution of that order. According to the parameters, which generally are time based/schedule based, and the purpose of the algorithm, the computer program determines the pricing and/or timing of execution and may generate "sub" or "child" orders that are routed for execution to achieve the trading objective of the algorithm. Examples of Trade Algorithms include VWAP, TWAP, POV. Computer programs that simply determine the destination and quantity (such as a Smart Order Router), and which do not otherwise have discretion over price and/or timing are not considered a Trading Algorithm.
Trade Date	Trade Date for Industry Member is defined as beginning immediately after 23:59:59.999999 ET on Trade Date T - 1 and up to 23:59:59.999999 ET of the next Trade Date T.
	Weekends and holidays are not considered a Trade Date. An event occurring on a weekend or holiday will be assigned to the next Trade Date.

Appendix G: Data Dictionary

$\underline{A} \ \underline{B} \ \underline{C} \ \underline{D} \ \underline{E} \ \underline{F} \ G \ \underline{H} \ \underline{I} \ \underline{J} \ K \ \underline{L} \ \underline{M} \ \underline{N} \ \underline{O} \ \underline{P} \ \underline{Q} \ \underline{R} \ \underline{S} \ \underline{T} \ \underline{U} \ V \ \underline{W} \ X \ Y \ Z$

Field Name	Data Type	Description		
accountHolderType	Choice	Represents the type of beneficial owner of the account for which an order was received or originated, or to which the shares/contracts are allocated.		
		Allowed Values		
		A Institutional Customer – An institutional account as defined in FINRA Rule 4512(c)		
		E Employee Account – An employee or associated person of the Industry Member or an employee or associated person of affiliated group companies		
		F Foreign – A non-broker-dealer foreign affiliate or non-reporting foreign broker-dealer		
		I Individual Customer – An account that does not meet the definition of "institution" as defined in FINRA Rule 4512(c) and is also not a proprietary account.		
		O Market Making – See <u>CAT FAQ C5</u> and <u>CAT FAQ B68</u>		
		V Firm agency average price account		
		P Other Proprietary		
		X Error Account – Error account of the firm		
actionType	Choice	Indicates whether the event is a new event, a correction, a repair or a record level deletion.		
		Allowed Values		
		NEW New Record		
		COR Correction of events initiated by firms.		
		RPR Repair of events for which a CAT error was provided in feedback		
		DEL Record level delete instruction. When deleting a record, Industry Members must not restate the event that is being deleted. Refer to Section 7 for instructions on record level deletions.		
affiliateFlag	Boolean	Indicates if the order is being routed to an affiliate or received from an affiliate of the Industry Member.		
		For definition of affiliate, refer to <u>CAT FAQ C4.</u>		
		Allowed Values		
		true Order is routed to or received from an affiliate		
		false Order is routed to or received from a non-affiliate		

Field Name	Data Type	Description	
aggregatedOrders	Aggregated Orders	When an Industry Member generates a New Order event to represent one or more customer/client orders, the aggregatedOrders field specifies the individual customer/client order(s) being represented. For each order being represented, the orderID and orderKeyDate must be provided. Quantity is required when a portion of the order's quantity is	
		included in the aggregation.	
		In instances when the aggregatedOrders field causes the event to exceed the maximum length (8190 bytes) allowed, one or more corresponding New Order Supplement events must be reported to capture the additional orders in the aggregatedOrders field.	
		Refer to Appendix C for additional information on representative and combined order linkage requirements.	
allocationID	Text (64)	The internal allocation ID assigned to the allocation event by the Industry Member. The combination of CATReporterIMID, allocationKeyDate, symbol and allocationID must be unique.	
allocationInstructionTime	Timestamp	The date/time the time the allocation instruction was received.	
allocationKeyDate	Timestamp	The date and time the <i>allocationID</i> was assigned.	
allocationType	Choice	Indicates the type of allocation being made.	
		Allowed Values for activity that is required to be reported to CAT.	
		Allowed Values for activity that is required to be reported to CAT: CUS Allocation to a custody account	
		DVP Allocation to a DVP/RVP account	
		CUSF Allocation to a custody account free of payment (if available in the booking system)	
		DVPF Allocation to a DVP/RVP account free of payment (if available in the booking system)	
		Refer to <u>FAQ U26</u> for additional information.	
		Allowed Values for activity that is being optionally reported to CAT	
		CMTA Options CMTA	
		FLP Correspondent Flip	
		FRM An allocation to a firm owned or controlled account	
		STO Step out/Step In OTH Other non-reportable transactions (e.g., option exercises,	
		conversions, allocations to the account of a CAT Reporting Industry Member)	
askAggregatedOrders	Aggregated Order Details	The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the ask side.	
askPrice	Price	Price being asked in a quote.	

Field Name	Data Type	Description	
askRelativePrice	Name/Value Pairs	Indicates if the ask price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>askPrice</i> may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	
		Allowed Values (Boolean)	
		BNCH Benchmark-based Pricing Model	
		M Midpoint Peg	
		MOC Market on Close – The quote is priced at the closing last sale price of regular market hours.	
		NAV Net Asset Value – The quote is priced using the Net Asset Value as a benchmark	
		OFF Priced with specific offset	
		OPM Other relative-based Pricing Model that may cause the quoted price to fluctuate multiple times throughout the day.	
		OTH Any relative pricing model not covered in the existing allowed values	
		PCT Priced with specific offset expressed in a percentage	
		PEG Indicates that the quote price is to be determined by a specific market price and/or volume factor or that the quote price should be determined pursuant to a specific formula	
		SPRD Price communicated represents a price differential between two symbols	
askQty	Whole Quantity	Quantity being asked in a quote.	
atsDisplayInd	Choice	ATS only field. Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.	
		Allowed Values	
		S Order is displayed outside of the ATS to subscribers only	
		A Order is displayed outside of the ATS to subscribers only, aggregated by price level on a timer basis	
		Y Order is displayed outside of the ATS via public quotation	
		N Order is not displayed outside of the ATS	
atsOrderType	Array	ATS only field. Unique identifier representing the specific order type(s) offered by the ATS.	
		ATSs will provide their order types and handling instructions to CAT by submitting data dictionaries.	
		Multiple atsOrderType values may be populated.	

Field Name	Data Type	Descri	otion
BFMMFlag	Boolean	Identifies if a Short Sale order event relies on the bona fide Market Makir exception under Rule 203(b)(2)(iii) of Regulation SHO. Only applicable to Market Makers on security-by-security basis. When populated with a value of true, the <i>side</i> field must be populated with the value of 'SS' or 'SX' and the <i>accountHolderType</i> field value must be 'O'.	
		Allowe	d Values
		true	Order is relying on bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO
		false	Order is not relying on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO
bidAggregatedOrders	Aggregated Order Details		derID of each Customer/Client order being aggregated into a quote bid side.
bidPrice	Price	Price be	eing bid in a quote.
bidRelativePrice	Name/Value Pairs	Indicates if the bid price of a response to an RFQ is expressed in benchmark or relative term (e.g., Peg, Offset) or other formula, and specific <i>bidPrice</i> may not be available. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.	
		Allowe	d Values (Boolean)
		BNCH	Benchmark-based Pricing Model
		M	Midpoint Peg
		MOC	Market on Close – The quote is priced at the closing last sale price of regular market hours.
		NAV	Net Asset Value – The quote is priced using the Net Asset Value as a benchmark
		OFF	Priced with specific offset
		OPM	Other relative-based Pricing Model that may cause the quoted price to fluctuate multiple times throughout the day.
		ОТН	Any relative pricing model not covered in the existing allowed values
		PCT	Priced with specific offset expressed in a percentage
		PEG	Indicates that the quote price is to be determined by a specific market price and/or volume factor or that the quote price should be determined pursuant to a specific formula
		SPRD	Price communicated represents a price differential between two symbols
bidQty	Whole Quantity	Quantit	y being bid in a quote.

Field Name	Data Type	Description	
buyDetails	Trade Side Details	Captures the Order Key and additional information for the Order associated with the buy side of a Trade Event.	
		This field is in the format of Trade Side Details, a compound data type that consists of a list of fields (see <u>Section 2.5 Data Types</u>). The <i>buyDetails</i> field is only used in Trade events and Trade Supplement events to capture the buy side details of the trade. Refer to <u>Section 4.11.1</u> for a list of fields. This field is applicable in Trade event if there is only one <i>orderID</i>	
		associated with this side of the trade. If there is more than one <i>orderID</i> , the <i>buyDetails</i> must be populated in separate Trade Supplement events.	
cancelQty	Real Quantity	The quantity being cancelled. A value of zero means that the cancel was for the full remaining quantity. For example, if an order for 500 shares had partially executed 200 shares, and then the remainder was canceled, the <i>cancelQty</i> could contain either 300 or 0.	
cancelFlag	Boolean	Represents instances when a trade was cancelled because the trade was rejected by the TRF/ADF/ORF, when a trade executed in a foreign market was cancelled, or when a customer/client fulfillment is cancelled. In such instances, set to 'true'. Refer to CAT FAQ E29 and CAT FAQ E30 for additional information.	
		Allowed Values	
		true trade event was cancelled upon rejection by the TRF/ADF/ORF; or fulfillment Was cancelled.	
		false trade event was not cancelled or cancellation was reported to the TRF/ADF/ORF; or fulfillment event was not cancelled.	
cancelTimestamp	Timestamp	The time at which a trade or fulfillment was cancelled. Must be populated when cancelFlag is 'true'.	
capacity	Choice	Specifies the capacity in which the Industry Member acted.	
		Allowed Values	
		A Agency	
		P Principal	
		R Riskless Principal	
CATReporterIMID	CAT Reporter IMID	The SRO-assigned identifier that an Industry Member uses to report to CAT.	
correspondentCRD	Unsigned	The CRD number of the related Introducing Broker or Correspondent firm, if applicable.	
clearingFirm	Unsigned	The clearing number of the Industry Member's clearing firm.	
clientDetails	Fulfillment Side Details	Specifies the Order Key and additional information for a Customer/Client Order for which a fulfillment event is associated.	
		This field is in the format of Trade Side Details, a multi-dimensional array that consists of a list of fields (see <u>Section 2.5 Data Types</u>). The <i>clientDetails</i> field is only used in Equity and Option Order Fulfillment and Fulfillment Amendment Events to capture the customer or client side details of the Fulfillment. Refer to <u>Section 4.12.1</u> for a List of fields.	
counterparty	Industry Member ID	The counterparty to the trade.	

Field Name	Data Type	Description		
custDspIntrFlag	Boolean	Indicates if a customer/client has instructed that a limit order must not displayed or that a block size order must be displayed contrary to what required by SEC Rule 604 or FINRA's Customer Limit Order Display R		
		Allowe	d Values	
		true	Customer/client has instructed that a limit order should not be displayed or that a block size order be displayed.	
		false	No instruction has been received from the customer/client that a limit order should not be displayed or that a block size order should be displayed.	
deptType	Choice	Repres the orde	ents the internal department, unit or desk originating or accepting er.	
		Allowe	d Values	
		A	Agency – a desk or department where orders may be routed to other trading centers, either by a trading system or with the assistance of traders. This would include smart routers and algorithmic trading.	
		ATS	Alternative Trading System – A trading system that meets the definition of "Alternative Trading System" under Regulation ATS.	
		DMA	Direct Market Access – For CAT reporting purposes, represents when an Industry Member permits a customer to use a market participant identifier assigned to the Industry Member to route orders directly to market centers.	
		SA	Sponsored Access – For CAT reporting purposes, represents when an Industry Member permits another broker-dealer to use a market participant identifier assigned to the Industry Member to route orders directly to market centers.	
		Т	Trading – A desk or department where orders are executed. This may be interpreted as either a trading system or a desk or department where orders are executed with the assistance of traders.	
		0	Other – A department that does not execute orders or route orders to other trading centers. The value of 'O' must only be used on events that are followed by Internal Route Accepted events.	
deskOrderID	Text (64)	Internal desk.	I identifier assigned to an internal route event by the Department or	
destination	Industry Member ID/Exchange		O-assigned identifier of the Industry Member or Exchange to an order was routed.	
ID		When o	destinationType is 'N' or 'S', this field is not required to be sed.	
			destinationType is F or O, this field is populated with the IMID of an y Member.	
		When of	destinationType is 'D', this field is populated with one of the g:	
			d Values for a Display-only Facility Destination	
		ADF	FINRA Alternative Display Facility	

Field Name	Data Type	Descriptio	n
destination (continued)			inationType is E, this field is populated with one of the
		following:	1.1
		Allowed Va	alues for an Exchange Destination
		AMER	NYSE American Equities
		AMEROP	NYSE American Options
		ARCA	NYSE ARCA Equities
		ARCAOP	NYSE ARCA Options
		вох	BOX Options Exchange
		BSTX	Boston Security Token Exchange
		вх	Nasdaq BX Equities
		BYX	Cboe BYX Exchange
		BZX	Cboe BZX Equities
		BZXOP	Cboe BZX Options
		C2	Cboe C2 Options
		CBOE	Cboe Exchange
		CHX	NYSE CHX
		EDGA	Cboe EDGA Exchange
		EDGX	Cboe EDGX Equities
		EDGXOP	Cboe EDGX Options
		EMLD	MIAX Emerald
		GEMX	Nasdaq GEMX
		IEX	Investor's Exchange
		ISE	Nasdaq ISE
		LTSE	Long Term Stock Exchange
		MEMX	Members Exchange
		MEMXOP	Members Options Exchange
		MIAMI	Miami International Securities Exchange
		MRX	Nasdaq MRX
		NOBO	Nasdaq BX Options
		NOM	Nasdaq Options
		NSDQ	Nasdaq Stock
		NSX	NYSE National
		NYSE	The New York Stock Exchange
		PEARL	MIAX PEARL
		PEARLEQ	MIAX PEARL Equities
		PHLX	Nasdaq PHLX Options
		PSX	Nasdaq PHLX Equities
		SPHR	MIAX Sapphire

Field Name	Data Type	Description		
destinationType	Choice	Indicates whether the destination of the route is an Industry Member, Display-only Facility, an exchange, a non-broker dealer, or a foreign broker-dealer.		
		Not required for quotes routed to OTC Link ATS.		
		Allowed Values for Quote Events		
		D Display-only Facility operated by a national securities association		
		F Industry Members		
		N Foreign		
		S Quote is being routed to a U.S. non-CAT reporting entity		
		Allowed Values for Order Events		
		F Industry Members		
		E Exchange		
		N Foreign – Not applicable to options events		
		OTC Equity symbol in a foreign security was sent to another Industry Member, who may route the order to a foreign market for execution.		
displayPrice	Price	ATS only field. The current price displayed by the ATS. Required when the ATS displays the order outside of the ATS.		
displayQty	Whole Quantity	ATS only field. The current quantity displayed by the ATS. Required when the ATS displays the order outside of the ATS.		
dupROIDCond	Boolean	On Order Route events and Route Modified events, indicates when a modification to an order previously routed to a national securities exchange requires the use of the original <i>routedOrderID</i> .		
		On New Quote and Quote Received events, indicates when the quote event maintains the same <i>routedQuoteID</i> .		
		Allowed Values		
		true Event contains a duplicated routedOrderID or routedQuoteID		
		false Event does not contain a duplicated routedOrderID or		
		routedQuoteID		
DVPCustodianID	Text (40)	Applicable to DVP/RVP transactions.		
		If the custodian is a US broker-dealer, this field must be populated with the clearing number of the custodian.		
		If the custodian is a bank and is not a registered broker-dealer, this field must be populated with the DTC number of the bank.		
		If there is no clearing number or DTC number, this field must be populated with a value of 'FOREIGN'.		
		Refer to CAT FAQ U19 for additional guidance.		
electronicDupFlag	Boolean	Indicates whether the event is a duplicative electronic message of a manual event. Must be present if true.		
		Allowed Values		
		true Event is a duplicative electronic message		
		false Event is not a duplicative electronic message		

Field Name	Data Type	Description
electronicTimestamp	Timestamp	For manually executed events, the time at which the event was systematized. Must be reported at the most granular level an Industry Member's order handling or execution systems use to capture data for the reported event, with at least millisecond granularity.
errorROEID	Unsigned	The unique identifier assigned by CAT to an error record. Must be populated when the <i>actionType</i> is RPR.
eventTimestamp	Timestamp	The date and time the event occurred.
		If electronic, required to be reported at the most granular level an Industry Member's order handling or execution systems use to capture data for the reported event, with at least millisecond granularity.
		If manual, required to be reported in increments of at least one second. If the order is immediately systematized, required to be reported with at least millisecond granularity.
		For allocation reporting, refer to <u>CAT FAQ U9</u> for additional information.
exchOriginCode	Text (4)	The code signifying the origin of the account exactly as sent to an Options exchange. Required for orders routed to an Options exchange.
		In instances where the market maker sends a market maker order through an options exchange protocol that does not require an exchange origin code, Industry Members must populate the exchOriginCode with MM. Refer to CAT FAQ E28 for additional information.
fillKeyDate	Timestamp	The date and time the fulfillmentID was assigned.
		Used to support uniqueness of a Fulfillment Key. If time is not needed to guarantee a unique Fulfillment Key, the time portion may be populated with zeros.
firmDesignatedID	Text (40)	See <u>FDID guidance</u> and <u>FDID FAQs.</u>
		A value of 'PENDING' must be populated in instances when an Industry Member receives an order for a new account and the new account number, on which the FDID is based, is not yet available. Once the FDID becomes available, the Industry Member must report the actual FDID in the <i>firmDesignatedID</i> field in a New Order Supplement event (i.e., MENOS, MONOS, or MLOS event).
firmDetails	Fulfillment Side Details	Specifies the Order Key and additional information for a Firm Originated Order for which a fulfillment event is associated.
		Refer to Appendix C for representative order linkage requirements.
		It is in the format of Fulfillment Side Details, a compound data type that consists of a list of fields (see <u>Section 2.5 Data Types</u>). <i>firmDetails</i> is only used in Equity and Option Order Fulfillment, Order Fulfillment Supplement and Fulfillment Amendment Events to capture the firm side details of the Fulfillment. See <u>Section 4.12.1</u> for list of fields.
		This field is applicable on an Order Fulfillment event if there is only one orderID associated with the firm side of the fulfillment. If there is more than one orderID associated with the firm side, the firmDetails must be populated in separate Order Fulfillment Supplement events.
firmROEID	Text (64)	An identifier of the record assigned by the CAT Reporter. The <i>firmROEID</i> is composed based on the following format:
		<event date="">_<firm identifier="" roe=""></firm></event>
		The firmROEID must be unique for the Event Date and CAT Reporter IMID.
fulfillmentID	Text (64)	The identifier for the order fulfillment. The combination of CATReporterIMID, fillKeyDate, symbol and fulfillmentID must be unique per Order Fulfillment event.

Field Name	Data Type	Description		
fulfillmentLinkType	Choice	Specifies the type of the fulfillment. Refer to <u>Appendix C</u> for additional information on Representative Order linkage requirements.		
		Allowed Values for Equity Events		
		FOR Fulfillment on an order routed to a foreign destination, no linkage required		
		Y Representative Order, linkage required		
		YE Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked OMS-EMS or position fill) All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.		
		YP Fill from pre-existing Principal order or pre-existing quote, linkage required		
		YS Representative Order, linkage required, details provided in a supplement event		
		Allowed Values for Option Events		
		O Options Order Fulfillment		
		OS Combined Options Order, linkage required, details provided in a supplement event		
		Allowed Values for Multi-Leg Events		
		OML Multi-Leg Options Order Fulfillment		
handlingInstructions	Name/Value Pairs	Order handling instructions qualify the pricing, quantity, execution timing, or execution method of an order. All instructions that apply to the order must be included.		
		The <i>handlingInstructions</i> field may contain zero or more order handling instruction codes. There is no limit to the number of <i>handlingInstructions</i> that may be populated in a record.		
		Each attribute is either Boolean or Non-Boolean. A Boolean attribute is a Name and a Non-Boolean attribute is a Name with an accompanying paired Value. Multiple attributes are separated by a delimiter.		
		For example, handlingInstructions are represented as follows in JSON: "handlingInstructions":{ "AOK": true,		
		"DISP": 10.00,		
		"TMO":"20190419T092316.123456789",		
		"AucResp":"AuctionID456"		
		"DLVT":["MM1","MM2","MM3"]		
		}		
		In CSV, handlingInstructions is represented as:		
		AOK DISP=10.00 TMO=20190419T092316.123456789 AucResp=		
		AuctionID456 DLVT=MM1@MM2@MM3		
handlingInstructions (continued)		In accordance with the November 2, 2023 SEC Exemptive Relief Order		

Field Name	Data Type	Descrip	tion
		Industry reported Member that is co include: descripti will subn 'AOK' in	e No. 34-98848), certain special handling instructions set by Members at exchanges via exchange ports are not required to be to CAT. ¹⁸ This exception is exclusively with respect to Industry reporting obligations when routing orders over an exchange port onfigured for one of these special handling instructions, which 'ATT', 'DNI', 'DNR', 'DNRT', 'RLO', and 'STP', and the associated ons in the below table are marked with an asterisk (*). CAT, LLC nit an exemptive relief request to the SEC to include 'AUC' and the list of Exempted Port-Level Settings that the Commission d in the November 2, 2023 Exemptive Order (Release No. 34-
		Allowed	l Values (Boolean)
		ADD	Add on Order – The customer/client adds additional shares to the order after it was fully executed.
		AIP	Automated Investment Plan – Customer order was originated in accordance with an Automated Investment Plan.
		ALG	Order was received or originated with instructions to work using a Trading Algorithm as defined in the Glossary.
		ALGMod	d Order originally received with instructions to work using a Trading Algorithm is later modified by the customer/client to use a different Trading Algorithm or change the settings of the trading algorithm
		ALGS	Indicates that the event is part of an algorithmic strategy where the specific quantity may not be explicitly provided.
		ALO	Add Liquidity Only
		AOK	Auction or Kill – Order is to be executed only through an Exchange auction, and should be cancelled otherwise. Must be paired with <i>handlingInstructions</i> value of 'AUC' (see <u>FAQ E32</u>) or AucResp (see <u>FAQ K3</u>).
		AON	All or None
		APCM	Auction Price Cap Market – Indicates the contra party of a paired option order (see <u>FAQ K20</u>) is willing to match any price improvement. Also, see <u>FAQ K26</u> .
handlingInstructions (continued)		AUC	Auction – Single-sided order is received, originated or routed with instructions specifically designated for participation in an auction outside of the equity opening or closing cross (i.e., must not be used in combination with any of the following handlingInstructions values: 'LOO', 'LOC', 'MOO', 'MOC', 'IO),. Must not be used for paired orders (see FAQ K20 for definition), or in combination with 'AucResp' handlingInstructions value. (see FAQ K3).
		ATT	Attributable – Order is routed to an exchange or ATS with instructions that the order is attributable (*).

¹⁸ See Securities Exchange Act Release No. 34-98848 "Order Granting Conditional Exemptive Relief, Pursuant to Section 36(a)(1) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 608(e) of Regulation NMS under the Exchange Act, from Certain Requirements of the National Market System Plan Governing the Consolidated Audit Trail" (November 2, 2023).
https://catnmsplan.com/sites/default/files/2023-11/11.02.23-SEC-Granting-Exemptive-Relief-of-Certain-Requirements-of-the-CAT-NMS-Plan.pdf.

Field Name	Data Type	Descrip	otion
		BIN	Buy-In – An order originated pursuant to SEC or SRO rules (e.g., to comply with the close out requirements of Regulation SHO or FINRA Rule 4320, or the buy-in requirement of SEA Rule15c3-3). Refer to CAT FAQ B37.
		CAC	Customer Accommodation Correction – 'COR' event was submitted to CAT as the result of a customer/client accommodation. Not to be used if the 'COR' event was submitted to correct an error by the Industry Member.
		CMC	Contingent on Market Conditions
		СМРХ	Electronic message representing an individual simple option or equity leg of a complex option order that was optionally reported to CAT.
		CND	Conditional Order – An order where the terms and conditions of the order are derived from a related transaction.
		CPR	Counterparty Restriction – Instructions that the order cannot be placed against certain counterparties.
		CTR	OTC Link ATS Counter Message – Indicates that a New Order event, Order Route event or Order Accepted event represents the origination, route or receipt of a counter message through OTC Link ATS.
		csc	Contingent on Spread Condition – order with a condition that may cause the order to become active or inactive multiple times throughout the day.
		CSH	Delivery Instruction – Cash trade settles on The same date.
		d	Discretionary Peg
		DAC	Delta-Adjusted at Close – A DAC order is an options order that executes during the trading day and, for which, the execution price is adjusted based on a delta value applied to the change in the price of the underlying reference price from the time of order execution to the market close.
		DIR	Directed Orders – Orders that meet the definition of "Directed Order" under Regulation NMS (formerly defined under SEC Rule 11Ac1–6), or any other order that is received or originated with instructions to route to a particular venue for execution.
		DIV	Dividend Reinvestment Order – Order is part of a dividend reinvestment program.
		DNI	Do Not Increase (*)
		DNR	Do Not Reduce (*)
		DNRT	Do Not Route (*)
		ERP	Exchange Retail Provider – An order routed to an exchange to interact with retail orders as part of a retail pricing program. Pricing, display and counterparty eligibility for exchange retail provider orders are subject to the rules of the receiving exchange.
handlingInstructions (continued)		EW	Exchange for Physical Transaction – Equity trade component of an "exchange for physical" transaction. An exchange for physical transaction involves two parties simultaneously executing a futures contract and an equity transaction (for the securities covered by the futures contract), typically involving baskets that replicate common indices.
		FB	Cboe Floor Broker – Indicates that the order is directed to a Cboe floor broker.
		FBA	NYSE Floor Broker Algorithm – Indicates that the order is routed to the Exchange via a NYSE Floor Broker Algorithm.

Field Name	Data Type	Descrip	tion
		FOK	Fill or Kill – Indicates the order is intended for immediate execution in its entirety, and if not executed in its entirety, the
		F0	order is cancelled.
		FS	Suspend
		FUT	Futures Related Trade – Price or size of a cash order is contingent upon a related futures trade.
		G	G Order – An order for an account covered by Exchange Act §11(a) that relies on §11(a)(1)(G) as an exemption to §11(a)(1)
		GP	Guaranteed Price – Order was received or originated with instructions to execute at a guaranteed price.
		Ю	Imbalance Only
		LO C	Limit on Close – Instructs the trader to execute the order at the closing price provided that the closing price is at or within the limit specified
		LOO	Limit on Open – Instructs trader to execute the order at the opening price provided that the opening price is at or within the limit specified.
		М	Midpoint Peg
		MAX	OTC Link ATS Message MAX instruction. Reflects the maximum number of shares to be executed between selected market makers.
		MOC	Market on Close – Instructs the trader to execute the order at the closing last sale price of regular market hours.
		МОО	Market on Open – Instructs the trader to execute the order at the opening print price of regular market hours.
		MRP	Merger Related Transfer Position
		MTL	Market to Limit – An order that is sent in as a market order to execute at the current best price. If the entire order does not immediately execute at the market price, the remainder of the order is resubmitted as a limit order with the limit price set to the price at which the original order executed.
		NAV	Net Asset Value – Order was received or originated with instructions to execute at a Net Asset Value.
		NCTR	OTC Link ATS No Counter – Indicates if an OTC Link ATS message cannot be countered with an inferior price.
		NH	Not Held
		OCP	OTC Link ATS instruction to cancel after partial execution.
		OFF	Priced with specific offset
		ОРО	Opt Out of Locked Market
		OPT	Options Related Trade – Price or size of a cash order is contingent upon a related option trade. This value must not be used on any multi-leg event (MLNO, MLOA, etc.).
		OVD	Over the Day – Requires that a trader break up an order into several partial executions. The customer/client may specify the number of executions.
		Р	Market Peg
handlingInstructions (continued)		PBG	Price Based on Greeks – Indicates that the limit price is to be determined by Greeks or other formula based on market conditions.
		PCS	Position Compression Service – Indicates that the order is to be executed through an exchange position compression service.
		РСТРХ	Indicates that the limit price provided in the <i>price</i> field is specified as a percentage of a benchmark price. For example,

Field Name	Data Type	Description	
			price=7.25 indicates that the limit price of the order is 7.25% of the closing price of the underlying security.
		PEG	Indicates that the limit price is to be determined by a specific market price and/or volume factor or that the limit price should be determined pursuant to a specific formula.
		QCC	Route was related to an order that was sent as a Qualified Contingent Cross.
		R	Primary Peg
		RAR	Routed as Received – For orders routed externally without any changes to the handling instructions, reporters may use this code to indicate that the handling instructions are equal to the received order.
		RLO	Retail Liquidity Order – Order is routed to an exchange marked as a retail order (*).
		RSV	Reserve Size Order – Required for an order for which a customer/client has authorized the public display of part of the full size of the order with the remainder held in reserve on an undisplayed basis to be displayed in whole or in part as the displayed part is executed.
		SCL	Scale – Requires partial executions that are not more than a specified price increment apart.
		SLD	Slide – Order is routed to an exchange or ATS with an instruction to adjust the limit price to prevent a locked or crossed market.
		SLL	Strategy Legs Later – Indicates that the multi-leg strategy order contains multiple option legs, where at least one leg is known and the receiving party determines one or more of the leg(s).
		SLQ	Stop Limit on Quote – An order that is triggered by a quotation at which point the stopped order becomes a limit order.
		SLR	Delivery Instructions: Seller's Option – Trade settles on the date determined by a seller.
		SOQ	Stop on Quote – An order that is triggered by a quotation at which point the stopped order becomes a market order.
		STOPF	Stop Formula – Exact stop price is unknown because it is either based on an underlying condition or will be determined by the destination venue.
		STP	Self Trade Prevention (*)
		TS	Trailing Stop
		TTF	Tied to Fixed Income
		TTO	Tied to a product that is not CAT reportable and is not identified through any other <i>handlingInstructions</i> value.
		TTS	Tied to Stock
		TTSO	Tied to Simple Option
		TTU	Tied to Unlisted Option
handlingInstructions		UNP	Unpriced Quote on an Order Driven Market – Applicable to orders received by Global OTC.
(continued)		UNS	Unsolicited Quote on an Order Driven Market – Applicable to orders received by Global OTC.
		WDP	With Discretion Price – Discretion on Limit Price Within a Specified Range
		WRK	Work – Leaves the time of execution to the trader's discretion; either full execution or partial executions are accepted.

Field Name	Data Type	Description	on
		Allowed \	/alues (Non-Boolean)
		AucResp	Auction Response – Requires the Auction ID value for option orders originated in response to an exchange auction. If there is no Auction ID, must be populated with a value of 'NOAUCID'. Data Type: Alphanumeric (40)
		APCL	Auction Price Cap Limit – Indicates the price at which the contra party of a paired option order (see <u>FAQ K20</u>) is willing to match price improvement (e.g., APCL=14.75). Also, see <u>FAQ K26</u> . Data Type: Price
		CASH	Cash Order – Instructs the Trader to buy or sell as much of a security as possible for the specified amount. Requires a numeric value that is greater than zero representing the notional amount of the order (e.g., CASH=1000.00). See CAT FAQ D10 for additional information. Data Type: Price
		DISP	Display Price – The display price at the time the order is received, originated, or routed. Requires a numeric value greater than or equal to zero representing the display price (e.g., DISP=10.00). Data Type: Price
		DISQ	Display Quantity – The display quantity at the time the order is received, originated, or routed. Requires a numeric value representing the display quantity (e.g., DISQ=1000). Data Type: Real Quantity
		DLVF	OTC Link ATS Message delivered from instruction. On an Order Accepted event reflecting the receipt of an OTC Link Message from OTC Link ATS or an Order Route event reflecting the route of an OTC Link Message by OTC Link ATS, reflects the IMID of the Industry Member that the OTC Link Message was delivered from (e.g., DLVF=IMID). Data Type: Text 16
		DLVT	OTC Link ATS Message deliver to instruction. On an Order Route event reflecting the route of an OTC Link Message to OTC Link ATS or an Order Accepted event reflecting the receipt of an OTC Link Message by OTC Link ATS, reflects the IMID of the Industry Member that the OTC Link Message was delivered to (e.g., DLVT=IMID). Use the '@' delimiter when submitting multiple IMIDs (e.g., DLVT=IMID1@IMID2@IMID3). Data Type: Array
		STOP	Stop Price – Requires a Numeric value representing the stop price (e.g., STOP=17.95). Data Type: Price
handlingInstructions		SW	Stop Stock Transaction – Any transaction resulting from an order for which a member and another party agree that the order will be executed at a Stop Stock Price or better. Requires a numeric value greater than zero representing the agreed stop price. Data Type: Price
(continued)		SWQ	Stop Stock Quantity – Requires a Numeric value greater than zero representing the quantity of shares of a stop stock order being stopped if the entire shares quantity of the order is not being stopped (e.g., SWQ=500). When SWQ is populated, SW must also be populated. Data Type: Whole Quantity

Field Name	Data Type	Description	
		TMO The trigger time of the Time Managed Order (e.g., the specific date and time that an order becomes a market or limit price order) - requires a Timestamp value. Data Type: Timestamp	
infoBarrierID	Text (20)	The identifier of the information barrier in place for a trading unit that will meet the criteria of the "no-knowledge" exception in FINRA Rule 5320.02.	
initiator	Choice	Indicates who initiated a cancel or modification request. If an order is modified or cancelled based on an implicit customer/client instruction, then the initiator field must be populated with a value of 'F'. Refer to CAT FAQ B63 for additional information.	
		Allowed Values	
		C Initiated by the Customer/Client	
		F Initiated by the firm	
institutionFlag	Boolean	Indicates if the account meets the definition of institution under FINRA Rule 4512(c).	
		Allowed Values	
		true Account meets the definition of institution under FINRA Rule 4512(c)	
		false Account does not meet the definition of institution under FINRA Rule 4512(c)	
isoInd	Choice	Indicates the order was an Intermarket Sweep Order	
		Allowed Values	
		ISOD Intermarket Sweep Order – Day	
		ISOI Intermarket Sweep Order – IOC	
		NA Not applicable	
leavesQty	Real Quantity	The quantity remaining unfilled after the event. The meaning of this field is dependent on the event in which it's used. Refer to each individual event definition for more detail.	
legDetails	Leg Details	Captures the leg level details for each leg associated with a Multi-Leg order event.	
		This field is in the format of Leg Details, a compound data type that consists of a list of fields (see <u>Section 2.5 Data Types</u>). The <i>legDetails</i> field is used in all Multi-Leg order events to capture the leg level details each event. Refer to <u>Section 5.2</u> for a the <i>legDetails</i> required in each Multi-Leg order event. If there are more <i>legDetails</i> than can be represented in one event, any	
		additional <i>legDetails</i> must be populated in separate Multi-Leg Order Supplement events.	
legRatioQuantity	Real Quantity	The ratio of quantity for this individual leg relative to the entire multi-leg security. May be represented as the entire quantity for the leg, or as the lowest common factor.	
legRefID	Text (64)	Unique identifier of the leg, optionally populated in the legDetails.	

Field Name	Data Type	Description		
manualFlag	Boolean	Indicates whether an order was received or handled manually.		
		Allowed Values		
		true Event was received/handled manually		
		false Event was not received/handled manually		
manualOrderID	Text (64)	In cases when a duplicative electronic message is reported, the manualOrderID is the orderID of the related manual order.		
manualOrderKeyDate	Timestamp	In cases when a duplicative electronic message is reported, the manualOrderKeyDate is the orderKeyDate of the related manual order.		
marketCenterID	Choice	For equities MEOT events, the national securities exchange or transaction reporting system operated by a registered securities association where the trade was reported. For options MOOT events, the options exchange where the trade occurred.		
		Allowed Values		
		Allowed Values		
		FINRA Transaction Reporting Systems		
		D ADF		
		DC FINRA/Nasdaq Chicago Trade Reporting Facility		
		DN FINRA/NYSE Trade Reporting Facility		
		L FINRA/Nasdaq Trade Reporting Facility		
		O OTC Reporting Facility		
		National Securities Exchanges		
		A NYSE MKT		
		B Nasdaq BX		
		BF Boston Security Token Exchange		
		C NYSE National		
		F Non-US Exchange		
		H MIAX PEARL Equities		
		I International Securities Exchange		
		J Cboe EDGA Exchange		
		K Cboe EDGX Exchange		
		LT Long Term Stock Exchange		
		M NYSE Chicago Stock Exchange		
		N New York Stock Exchange		
		P NYSE Arca		
		Q The Nasdaq Stock Market		
		U Members Exchange		
		V Investors Exchange		
		W Cboe Stock Exchange Y Nasdag PSY		
marketCenterID		X Nasdaq PSX Y Cboe BYX Exchange		
(continued)		Z Cboe BZX Exchange		
		2 Obde bz/\ Exchange		

Field Name	Data Type	Description		
			xchanges	
		ARCAOP	NYSE ARCA Options	
		AMEROP	NYSE American Options	
		BOX	BOX Options Exchange	
		BZXOP	Cboe BZX Options Exchange	
		C2	Cboe C2 Options	
		CBOE	Cboe Exchange	
		CHX	NYSE CHX	
		EDGXOP	Cboe EDGX Options	
		EMLD	MIAX Emerald	
		GEMX	Nasdaq GEMX	
		ISE	Nasdaq ISE	
		MEMXOP	Members Options Exchange	
		MIAMI	Miami International Securities Exchange	
		MRX	Nasdaq MRX	
		NOBO	NASDAQ BX Options	
		NOM	NASDAQ Options Market	
		PEARL	MIAX PEARL	
		PHLX	NASDAQ PHLX Options	
		SPHR	MIAX Sapphire	
minQty	Whole Quantity	transaction to the orde	he minimum quantity allowed to be executed in a single n. The <i>minQty</i> is required to be populated when it is applicable er. This means that it is only required to be reported when a or a routing firm explicitly specifies a minimum quantity.	
mpStatusCode	Choice	Market Pal open or clo	rticipant Status Code- indicates if the market maker's quote was osed.	
		Allowed V	/alues	
		0 0	pen	
		c c	lose	
multiLegInd	Boolean		when the immediately preceding event in the order life cycle is a order event. Refer to <u>Section 5.2.2</u> for additional guidance.	
		Allowed V	/alues	
		true T	the immediately preceding event in the order life cycle is a Multi- eg order event	
			he immediately preceding event in the order life cycle is not a fulti-Leg order event	

Field Name	Data Type	Description		
nbboSource	Choice	ATS only field. Source of the NBBO data used.		
		Allowed Values		
		D Direct		
		S SIP		
		H Hybrid – NBBO Source of Hybrid is used in instances where the firm uses a combination of Direct and SIP feeds as its NBBO Source.		
		NA Not Applicable		
		NBBO Source of 'NA' is used when the NBBO Engine Look up Date and Time is not applicable for the ATS Order Type or the ATS cancelled the order without referencing the NBBO. If this value is used, the related NBBO price and quantity fields must be populated with a value of '0' and the nbboTimestamp must be blank.		
nbboTimestamp	Timestamp	ATS only field. The date and time at which the NBBO was referenced.		
nbbPrice	Price	ATS only field. The national best bid price in effect at the event timestamp.		
		If the event changed the NBBO, populate with the national best bid price before the change effected by the event.		
nbbQty	Whole Quantity	ATS only field. The national best bid quantity in effect at the event timestamp.		
		If the event changed the NBBO, populate with national best bid quantity before the change effected by the event.		
nboPrice	Price	ATS only field. The national best offer price in effect at the event timestamp.		
		If the event changed the NBBO, populate with the national best offer price before the change effected by the event.		
nboQty	Whole Quantity	ATS only field. The national best offer quantity in effect at the event timestamp.		
		If the event changed the NBBO, populate with the national best offer quantity before the change effected by the event.		
negotiatedTradeFlag	Boolean	Identifies if an order is the result of a negotiated trade between two parties.		
		Allowed Values		
		true Indicates the trade is a result of a negotiation		
		false Indicates the trade is not the result of a negotiation		
netPrice	Price	The net price of the order if tied to stock, tied to fixed income, tied to futures, tied to a non-CAT reportable product, or part of another trading strategy in which the order is traded at a net price. Refer to CAT FAQ B71 for additional information.		
newOrderFDID	Text (40)	The FDID of the related New Order event, if available in the booking system. Requirements for populating this field may be expanded in future phases of CAT.		
numberOfLegs	Whole Quantity	Indicates the number of CAT reportable legs in the multi-leg order.		
occClearingMemberID	Text (40)	The OCC Clearing Member ID on optionally reported CMTA transactions.		

Field Name	Data Type	Description
onlyOneQuoteFlag	Boolean	Identifies instances when the quoting system allows only one quote to be active at a time for the particular market maker.
		Allowed Values
		true System allows only one quote
		false System allows multiple quotes
openCloseIndicator	Choice	Indicates when exchange rules require an order to be marked as open or close upon entry into the exchange. Must be reported as a point-in-time value on each event (therefore, this may differ between New Option Order and Option Order Route for the same <i>orderID</i>).
		Allowed Values
		Open Close
optionID	Text (22)	The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is prepended to the OSI symbol elements.
orderID	Text (64)	The internal order ID assigned to the order by the Industry Member. The combination of <i>CATReporterIMID</i> , <i>orderKeyDate</i> , <i>symbol</i> and <i>orderID</i> must be unique.
orderKeyDate	Timestamp	For Primary Events and Secondary Events that assign the Order Key, the date and time the <i>orderID</i> was assigned.
		For Secondary events that did not assign a new Order Key, the orderKeyDate of the related event from which the Secondary event originated.
		Used to support uniqueness of an Order Key. If time is not needed to guarantee a unique Order Key, the time portion may be populated with zeros.
orderType	Choice	The type of order being submitted.
		Allowed Values
		CAB Cabinet
		LMT Limit
		MKT Market
originatingIMID	CAT Reporter IMID	An identifier used in instances of a merger or acquisition where the originating firm had open limit orders on its books that will be executed or otherwise resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> .
pairedOrderID	Text (64)	If the order was routed as a pair, the internal identifier assigned to all orders included in the paired route. The <i>pairedOrderID</i> can be any unique identifier that links the offsetting sides of the paired orders together. The field is not used for linkage or validation; it does not have to match the value sent to the exchange.
		The field is not required on MEOR, MEOA, MOOA, and MLOA events reported by Industry Members. Industry Members may optionally populate the pairedOrderID field on Option, Multi-leg or Equity Order Route events for orders that are routed to another Industry Member, if two or more offsetting orders are sent with instructions to cross.
parentOrderID	Text (64)	The <i>orderID</i> of the event from which the Child Order Event or Order Internal Route Accepted event originated.

Field Name	Data Type	Description
parentOrderKeyDate	Timestamp	The parentOrderKeyDate is the orderKeyDate of the event from which the Child Order or Order Internal Route Accepted event originated.
price	Price	For Equity and Simple Option Order events, the limit price of the order. The <i>price</i> field may be populated with a value of '0' for orders that are not market orders, but do not have a set limit price. Refer to CAT FAQ B58 for additional information. For Trade events, the price of the trade. For Order Fulfillment events, the price of the fulfillment. For Post-Trade Allocation events, the price of the
		allocated shares. For Multi-Leg Order events, the net price of the order inclusive of ratio and side represented as a debit/credit.
priceType	Choice	On multi-leg order events, indicates how the net price was represented in the price field.
		Allowed Values
		PU "Per Unit" price representing the leg ratios as specified in the legDetails block
		TC "Total Cash" amount to settle the full quantity of all legs (i.e., inclusive of the 100 multiplier for option legs)
		TS "Total Strategy" price for the full quantity of all legs
priorAllocationID	Text (64)	If a new allocation ID is assigned, this is the <i>allocationID</i> of the event being modified.
priorAllocationKeyDate	Timestamp	In cases when a new <i>allocationID</i> is assigned, the <i>priorAllocationKeyDate</i> is the <i>allocationKeyDate</i> of the allocation event that is being modified.
priorDeskOrderlD	Text (64)	When a new deskOrderID has been assigned on an internal route modified event, this is the deskOrderID of the event being modified.
priorFulfillmentID	Text (64)	In cases when a new fulfillmentID is assigned, the priorFulfillmentID is the fulfillmentID that is being amended.
priorFillKeyDate	Timestamp	In cases when a new fulfillmentID is assigned, the priorFillKeyDate is the fillKeyDate of the fulfillment that is being amended.
priorOrderID	Text (64)	In cases when an event assigns a new orderID, the priorOrderID is the orderID that is being replaced.
priorOrderKeyDate	Timestamp	In cases when an event assigns a new orderID, the priorOrderKeyDate is the orderKeyDate of the order whose orderID is being replaced.
priorRoutedOrderID	Text (64)	In cases where a Route Modified event assigns a new routedOrderID, the priorRoutedOrderID is the routedOrderID of the Order Route event being modified.
priorQuoteID	Text (64)	In cases when a new <i>quoteID</i> is assigned, the <i>priorQuoteID</i> is the <i>quoteID</i> that is being replaced.
priorQuoteKeyDate	Timestamp	In cases when an event assigns a new quoteID, the priorQuoteKeyDate is the quoteKeyDate of the order whose quoteID is being replaced.

Field Name	Data Type	Description
quantity	Real Quantity	The quantity of the order. For orders reported with the <i>handlingInstructions</i> value of 'ALGS', a <i>quantity</i> value of '0' may be reported if no maximum quantity is explicitly specified or if there is no set quantity stipulated. Refer to <u>CAT FAQ K22</u> for additional information. Starting December 5, 2022, a <i>quantity</i> value of '0' may be optionally reported for notional orders reported with the 'CASH' <i>handlingInstructions</i> value. Starting December 11, 2023, a <i>quantity</i> value of '0' must be reported for notional orders reported with the 'CASH' <i>handlingInstructions</i>
quoteID	Text (64)	value. See <u>CAT FAQ D10</u> for additional information. The internal quote ID assigned to the quote by the reporter. Required to report at the start of the lifecycle if initiated by a quote. On Order Route events, the <i>quoteID</i> of the related MEQR event reported by the IDQS.
quoteKeyDate	Timestamp	The date and time the <i>quoteID</i> was assigned. Used to support uniqueness of a Quote Key and IDQS Linkage Key. If time is not needed to guarantee a unique Quote Key, the time portion may be populated with zeros.
quotePriceType	Choice	On multi-leg quote events, indicates how the net price was represented in the price field. Allowed Values PU "Per Unit" price representing the leg ratios as specified in the legDetails block TC "Total Cash" amount to settle the full quantity of all legs (e.g., inclusive of the 100 multiplier for option legs) TS "Total Strategy" price for the full quantity of all legs
quoteRejectedFlag	Boolean	Indicates if the quote was not accepted by the destination. Allowed Values true false
quoteWantedInd	Choice	Indicates if the quote message received by an IDQS is a request for a bid or an ask. Allowed Values A Ask Wanted B Bid Wanted
receivedQuoteID	Text (64)	Identifies the quote ID as received by the ATS, RFQ platform, or broker-dealer, it must match the <i>routedQuoteID</i> in the Routed Quote/ Option Routed Quote/ Multi-Leg Routed Quote event reported by the issuer of the quote.
receiverIMID	Industry Member ID	The IMID of the Industry Member receiving the order or quote. receiverIMID must match the destination field on the Order Route/Routed Quote event reported by the routing Industry Member. If receiving from an exchange as the routing broker, then this must match the routingParty on the Order Route event reported by the exchange.
receivingDeskType	Choice	Indicates the type of desk or department within the firm that received the

Field Name	Data Type	Description
receivingDeskType		order. More granular than the field <i>deptType</i> . Only required when the destination of an internal route is a desk.
(continued)		destination of an internal route is a desk.
		Allowed Values
		A Agency
		AR Arbitrage
		B Block Trading
		C Convertible Desk
		CR Central Risk Books
		D Derivatives
		EC Equity Capital Markets
		FB Floor Broker
		IN International
		IS Institutional
		O Other
		PF Preferred Trading PR Proprietary
		' '
		PT Program Trading S Sales
		SW Swaps
		T Trading Desk
		TR Treasury
reportingExceptionCode	Choice	Indicates the reason that a unique identifier (e.g., Branch Sequence Number, Compliance ID) was not supplied to a transaction reporting system.
		Allowed Values
		C Industry Member was the contra side of the trade report for a trade which was reported to a TRF/ORF/ADF via a QSR or AGU.
		F Reported on Form T pursuant to FINRA Trade Reporting Rules.
		N Trade was executed by a non-FINRA member and reported to the TRF by the FINRA member counterparty.
		P Intra–firm order where there is no change in beneficial ownership.
representativelnd	Choice	Indicates the type of representative order being reported and whether linkage is required. Refer to <u>Appendix C</u> for additional information on Representative Order linkage requirements.
		Allowed Values for Equities
		Y Representative order, linkage required
		YE Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked OMS-EMS or position fill workflow)All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted by the SEC on January 17, 2025.
		YP Representative order, pricing guarantee, no linkage required All Industry Members will be required to provide representative order linkages to unlinked OMS/EMS and position fill scenarios no later than July 31, 2025 due to the expiry of the exemptive relief granted

Field Name	Data Type	Description		
representativeInd		by the SEC on November 2, 2023.		
(continued)		YS Representative order, linkage required; details in supplement event		
		Not a representative order, linkage is not applicable		
		Allowed Values for Simple Options		
		O Options Combined Order		
		OS Options Combined Order; details in supplement event		
		N Not a combined order, linkage is not applicable		
		Allowed Values for Multi-Leg/Complex Options		
		OML Multi-Leg Options Combined Order		
		OMS Multi-Leg Options Combined Order; details in supplement event		
		N Not a combined order, linkage is not applicable		
representativeQuoteInd	Choice	Indicates if the quote represents customer/client orders.		
		Allowed Values		
		A Ask		
		B Bid		
		C Combined Quote containing Ask and Bid		
		N Neither		
		S Details in supplement event		
reservedForFutureUse	Text (0)	Field is Reserved for Future Use and must remain blank. Future enhancements to Message Types with positions that are Reserved for Future Use will occupy the available position before adding a new position.		
retiredFieldPosition	Text (0)	Field position is retired and must remain blank. Used when a field position contained a field that was actively reported and was removed. Future enhancements to Message Types will not occupy these positions.		
requestTimestamp	Timestamp	The date/time that a modification/cancellation request was received. This timestamp is used as an alternative to reporting separate a request event, and should not be used when a separate request event is reported.		
RFQFlag	Boolean	Indicates if the quote was originated in response to an electronic RFQ. This field is exclusively associated with RFQ responses that are communicated in standard electronic format directly to an Industry Member's OMS/EMS or to an RFQ platform and that are not "immediately actionable" (i.e., further action is required before a trade can be executed/routed), which are not required to be reported to CAT until August 1, 2026, to the extent such responses are considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information.		
		Allowed Values		
		true Quote Event being reported as the result of a response to an electronic RFQ.		
		false Quote Event is not being reported as the result of a response to an electronic RFQ.		

Field Name	Data Type	Description			
RFQID	Text (64)	For New Order or Quote events representing a response to an RFQ or solicitation, the ID assigned to the related RFQ or solicitation being responded to.			
routedOrderID	Text (64)	For orders routed, the ID assigned to the order by the routing firm when routing the order.			
		For orders received, the ID assigned to the order by the routing firm.			
		Must be unique per combination of Event Date, <i>symbol</i> (or <i>optionID</i>), <i>destination/receiverIMID</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges).			
routedQuoteID	Text (64)	For quotes sent, the <i>quoteID</i> as sent to the recipient of the quote.			
		For quotes received, the <i>quoteID</i> as received from the routing firm.			
routeRejectedFlag	Boolean	Indicates the routed order was not accepted by the destination (i.e., rejected, no response). Refer to Section 2.6.3.5 for additional information.			
		Allowed Values			
		true Rejected or abandoned			
		false Not rejected			
sellDetails	Trade Side Details	Captures the Order Key and additional information for the Order associated with the sell side of a Trade Event.			
		This field is in the format of Trade Side Details, a compound data type that consists of a list of fields (see <u>Section 2.5 Data Types</u>). The <i>sellDetails</i> field is only used in Trade events and Trade Supplement events to capture the sell side details of the trade. Refer to <u>Section 4.11.1</u> for a list of fields.			
		This field is applicable on a Trade event if there is only one <i>orderID</i> associated with this side of the trade. If there is more than one <i>orderID</i> , the <i>sellDetails</i> must be populated in separate Trade Supplement events.			
senderIMID	Industry Member ID/ Exchange ID	Provides the identity of the party routing the order or quote, known also by the destination. The <i>senderIMID</i> reported by the routing entity must match the <i>senderIMID</i> reported by the receiving party.			
		When receiving an order, the <i>senderIMID</i> is the IMID from which the order was received. When receiving orders from an exchange, the <i>senderIMID</i> must be equal to the Exchange ID and must match the <i>exchange</i> field in the Route event reported by the exchange.			
		When routing an order, the <i>senderIMID</i> is the IMID being used by the Industry Member to route the order or quote, as known by the destination. The <i>senderIMID</i> is either the IMID of the Industry Member, corresponding to <i>senderType</i> F or O, or the Exchange ID of the exchange, corresponding to <i>senderType</i> E.			
		When senderType is 'N' or 'S', this field is not required to be populated.			
		Allowed Values for Exchange ID (when senderType = E)			
		AMER NYSE American Equities			
		AMEROP NYSE American Options			
		ARCA NYSE ARCA Equities			
		ARCAOP NYSE ARCA Options			
		BOX BOX Options Exchange			
		BX Nasdaq BX Equities			

Field Name	Data Type	Description	n	
		BYX	Cboe BYX Exchange	
		BZX	Cboe BZX Equities	
		BZXOP	Cboe BZX Options	
		C2	Cboe C2 Options	
senderIMID		CBOE	Cboe Exchange	
(continued)		СНХ	NYSE CHX	
		EDGA	Cboe EDGA Exchange	
		EDGX	Cboe EDGX Equities	
		EDGXOP	Cboe EDGX Options	
		EMLD	MIAX Emerald	
		GEMX	Nasdaq GEMX	
		IEX	Investor's Exchange	
		ISE	Nasdaq ISE	
		LTSE	Long Term Stock Exchange	
		MEMX	Members Exchange	
		MEMXOP	Members Options Exchange	
		MIAMI	Miami International Securities Exchange	
		MRX	Nasdaq MRX	
		NOBO	Nasdaq BX Options	
		NOM	Nasdaq Options	
		NSDQ	Nasdaq Stock	
		NSX	NYSE National	
		NYSE	The New York Stock Exchange	
		PEARL	MIAX PEARL	
		PEARLEQ	MIAX PEARL Equities	
		PHLX	Nasdaq PHLX Options	
		PSX	Nasdaq PHLX Equities	
		SPHR	MIAX Sapphire	
senderType	Choice	Identifies fro	om where a routed quote or order originated.	
			alues for Quote Events	
			dustry Members	
			reign	
		S Qu	uote is being routed from a U.S. non-CAT reporting entity	
		Allowed Va	alues for Order Events	
			change	
			dustry Member	
		o 01	C Equity symbol in a foreign security was sent by another dustry Member, who may not have a CAT reporting obligation	
seqNum	Alphanumeric (40)		eld. The sequence number of the event, used to sequence n multiple events have the same timestamp.	
		The sequence number is required to be an increasing value for a CA Reporter, Event Date, and symbol, such that it can be used to seque events having the same event timestamp in chronological order.		
			ction 2.3.1 Timestamps and Section 3.1.3 Sequence Number.	
		1 15.51 10 50		

Field Name	Data Type	Description					
session	Text (40)	The identifier representing the name or identifier of the session used when routing to an exchange. <i>Session</i> may be blank or populated with any string value that is shared between sender and receiver. Used to ensure a unique Route Linkage Key. Refer to the <u>Order Routing Field Mapping</u> document published on the IM Technical Specifications page of the CAT Public Website.					iny
settlementDate	Date	The sett	lement o	date of the securities be	ing allo	cated	
side	Choice			t. Allowable side value: side as shown below.	s are ba	sed on the correspo	onding
				Produc	t Type		
		Side		Equity		Option	
		Buy	В	Buy	В	Buy	
		Sell	SL SS SX	Sell Long Short Sale Short Sale Exempt	S	Sell	
sideDetailsInd	Choice	Identifies if a Trade event is one sided, and which side of the trade the Industry Member is populating in the Trade Side Details.					e the
			The Tra	de event is one sided, a ade. Only the <i>buyDetai</i> l			suy side
		SELL The Trade event is one sided, and the reporter is on the Sell side of the trade. Only the <i>sellDetails</i> are populated.				ell side	
		NA	Not App	licable – the Trade eve	nt is no	t one sided.	
solicitationFlag	Boolean	Indicate solicitati		order was originated in i ess.	respons	e to an RFQ or othe	er
		This field is not used to indicate if a registered representative of the firm solicited a customer/client order. Allowed Values					e firm
		true		was received or origina Q or other solicitation p			onse to
		false		was not received or ori RFQ or other solicitation			esponse
symbol	Symbol	The symbol of the stock in the symbology of the primary listing exchange or FINRA OTC symbology for OTC Equity Securities.			change		

Field Name	Data Type	Descr	iption			
tapeTradeID	Text (40)	The unique identifier reported by the Industry Member to the TRF/ADF/ORF based on the reporting specifications of the specific facility. Required when the <i>tapeTradeID</i> was supplied to a transaction reporting system: Compliance ID in ORF and ADF Branch Sequence Number in FINRA/NQ TRF FINRA Compliance Number in FINRA/NYSE TRF				
		marke	be unique per combination of Eve tCenterID and symbol.	·		
			edia tape report.	reporting side or the contra-side of		
timeInForce	Name/Value Pairs	Each a Name paired	and a Non-Boolean attribute is a Value.	n-Boolean. A Boolean attribute is a		
		Ex	JSON	CSV		
		1	"timeInForce":{"DAY": 20190528}	DAY=20190528		
		2	"timeInForce":{"GTT": "20190528T160000.000000"}	GTT=20190528T160000.000000		
		3	"timeInForce":{"IOC": true}	IOC		
		Allowed Values (Boolean)				
		GTC	Good till Cancelled			
		GTM Good this Month – Valid until last business day of the month in which the order originated.				
		IOC	Immediate or Cancel			
		IOR Immediate or Return – Only applicable to options floor brokers				
		Allowe	ed Values (Non-Boolean)			
		DAY	Day Order – Requires the ex to Event Date or Event Date Data Type: Date	piration date which must be equal plus one Trading Day.		
		 GFD OTC Link ATS message Good for Duration – Requires the duration in the number of whole seconds. Only Applicable to order events representing OTC Link ATS messages. Data Type: Unsigned GTD Good till Date – Requires the expiration date. Data Type: Date GTT Good till Time – Requires the expiration timestamp. Data Type: Timestamp 				
		GTX	Good till Crossing – Requires equal to Event Date or Event Data Type: Date	s the expiration date which must be t Date plus one Trading Day.		
tradeDate	Date		ade date of the securities being a of or optionID field on Allocation e			

Field Name	Data Type	Description			
tradelD	Text (64)	The internal trade ID assigned to the trade event by the Industry Member. The combination of <i>tradeKeyDate</i> , <i>CATReporterIMID</i> , <i>symbol</i> , and <i>tradeID</i> must be unique.			
tradeKeyDate	Timestamp	The date and time the <i>tradeID</i> was assigned.			
		Used to support uniqueness of a Trade Key. If time is not needed to guarantee a unique Trade Key, the time portion may be populated with zeros.			
tradingSession	Choice	The trading session(s) during which an order is eligible to trade.			
		Allowed Values			
		FOR To be executed only on a Foreign Market			
		PRE Pre-Market Only			
		PREREG Pre-Market and Regular			
		REG Regular Only			
		REGPOST Regular and Post-Market			
		POST Post-Market Only			
		PREPOST Pre-Market and Post-Market			
		ALL All Sessions – Order can trade in any available session at the venue where it is sent. Refer to FAQ D32 for additional information.			
triggerPrice	Price	The price at which the order became effective. Required in scenarios where the trigger price was not explicitly captured in the handlingInstructions field on the related new order (e.g., Stop Formula, Trailing Stop)			
type	Message Type	Specifies the event type.			
		Equity Events			
		MENO New Order			
		MENOS New Order Supplement			
		MEOR Order Route			
		MEMR Route Modified			
		MECR Route Cancelled			
		MEORS Order Route Supplement			
		MEMRS Route Modified Supplement			
		MECRS Route Cancelled Supplement			
		MEOA Order Accepted			
		MEIR Order Internal Route Accepted			
		MEIM Order Internal Route Modified			
		MEIC Order Internal Route Cancelled			
		MEIMR Order Internal Route Modification Request			
		MEICR Order Internal Route Cancel Request			
		MECO Child Order			
		MECOM Child Order Modified			
		MECOC Child Order Cancelled			
		MEOM Order Modified			
		MEOMS Order Modified Supplement			
tuno		MEOMR Order Modification Request			
type		1			

Field Name	Data Type	Descripti	ion
(continued)		MEOJ	Order Adjusted
		MEOC	Order Cancelled
		MEOCR	Order Cancel Request
		MENQ	New Quote
		MENQS	New Quote Supplement
		MERQ	Routed Quote
		MERQS	Routed Quote Supplement
		MEQR	Quote Received
		MEQC	Quote Cancelled
		MEQM	Quote Modified
		MEQS	Quote Status
		MEOT	Trade
		MEOTS	Trade Supplement
		MEOF	Order Fulfillment
		MEOFS	Order Fulfillment Supplement
		MEFA	Order Fulfillment Amendment
		MEPA	Post-Trade Allocation
		MEAA	Amended Allocation
		MEOE	Order Effective
			Option Events
		MONO	New Option Order
		MONOS	Option Order Supplement
		MOOR	Option Order Route
		MOMR	Option Route Modified
		MOCR	Option Route Cancelled
		MOORS	Option Order Route Supplement
		MOMRS	Option Route Modified Supplement
		MOCRS	Option Route Cancelled Supplement
		MOOA	Option Order Accepted
		MOIR	Option Order Internal Route Accepted
		MOIM	Option Order Internal Route Modified
		MOIC	Option Order Internal Route Cancelled
		MOIMR	Option Order Internal Route Modification Request
		MOICR	Option Order Internal Route Cancel Request
		MOCO	Child Option Order
		MOCOM	Child Option Order Modified
		MOCOC	Child Option Order Cancelled
		MOOM	Option Order Modified
		MOOMS	Option Order Modified Supplement
		MOOMR	
		MOOJ	Option Order Adjusted
		MOOC	Option Order Cancelled
		MONQ	New Option Quote
		MORQ	Option Routed Quote
type		MOQR	Option Received Quote
type	l		

Field Name	Data Type	Description		
(continued)		MOQC	Option Quote Cancelled	
		MOQM	Option Quote Modified	
		MOOCR	Option Order Cancel Request	
		MOOT	Option Trade	
		MOOF	Option Order Fulfillment	
		MOOFS	Option Order Fulfillment Supplement	
		MOFA	Option Order Fulfillment Amendment	
		MOPA	Option Post-Trade Allocation	
		MOAA	Option Amended Allocation	
		MOOE	Option Order Effective	
		Multi-Leg	Option Events	
		MLNO	Multi-Leg New Order	
		MLOR	Multi-Leg Order Route	
		MLMR	Multi-Leg Route Modified	
		MLCR	Multi-Leg Route Cancelled	
		MLOA	Multi-Leg Order Accepted	
		MLIR	Multi-Leg Order Internal Route Accepted	
		MLIM	Multi-Leg Order Internal Route Modified	
		MLIC	Multi-Leg Order Internal Route Cancelled	
		MLIMR	Multi-Leg Order Internal Route Modification Request	
		MLICR	Multi-Leg Order Internal Route Cancel Request	
		MLCO	Multi-Leg Child Order	
		MLCOM	Multi-Leg Child Order Modified	
		MLCOC	Multi-Leg Child Order Cancelled	
		MLOM	Multi-Leg Order Modified	
		MLOMR	Multi-Leg Order Modification Request	
		MLOC	Multi-Leg Order Cancelled	
		MLOCR	Multi-Leg Order Cancel Request	
		MLNQ	New Multi-Leg Quote	
		MLRQ	Multi-Leg Routed Quote	
		MLQM	Multi-Leg Quote Supplement	
		MLQR	Multi-Leg Quote Received	
		MLQC	Multi-Leg Quote Cancelled	
		MLQM	Multi-Leg Quote Modified	
		MLOS	Multi-Leg Order Supplement	
		MLOE	Multi-Leg Order Effective	
underlying	Symbol	The symbolegs.	ol of the underlying instrument for one or more of the option	
		_	on 0 for guidance.	
		Joe decile	on galacitos.	

Field Name	Data Type	Description			
unsolicitedInd	Choice	Indicates when the quote is unsolicited.			
		Allowed Values			
		U Unsolicited Bid and Ask			
		A Unsolicited Ask			
		B Unsolicited Bid			
		N Not Unsolicited			
unpricedInd	Boolean	Indicates when a quote is unpriced. Used to indicate when a quote represents a name only quote in an OTC Equity security or when quote is generated to cancel and clear an existing two-sided quotation in NMS Security on a Display-Only Facility.			
		Allowed Values			
		true Quote is unpriced			
		false Quote is not unpriced			
validUntilDuration	Real Quantity	RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. <i>validUntilDuration</i> is an optional field.			
workingPrice	Price	ATS only field. The working price of the order. If the price at which an order is currently priced on the matching engine is different that the stated limit price, the current price at which the order is priced on the matching engine should be populated.			
		For example, in a PEG order, the adjusted price due to NBBO movement if the ATS repriced the order must be captured in <i>workingPrice</i> .			
		If an ATS does not maintain a separate working price within its matching engine, this field would not be applicable.			

Appendix H: Processing Stages Feedback and Examples

This section describes the types of validations, feedback files and associated error files that are generated by CAT during each processing stage. Related examples are included representing the Error Data Feedback File.

H.1: Processing Stages Feedback

The table below contains the types of validations generated by CAT at each processing stage of for Data Files:

Table 188: Processing Stages Types of Validation and Associated Feedback

Processing Stage	Validations	Data File Validation	Record Validation	Error Feedback
File Acknowledgement	Validate file name construct	✓		Data File with errors is rejected.
File Integrity	Duplicate file name	✓		Meta Feedback File is returned indicating the file for which the filename is duplicated is rejected.
	Filename elements validations including submitter relationship are formatted as expected	~		Feedback File is returned indicating the Data File is rejected.
Data Ingestion	Unreadable Data File	~		Meta Feedback File i is returned indicating the Data File is rejected.
	Validate Events correct syntax and semantics associated with record length, field length, data type, non-null and reference data checks		√	Meta feedback file is returned indicating the Data File has Errors; Error Data Feedback File is returned with errors.
Linkage Discovery	Validate Events, Event Keys and Linkage Keys are not duplicated		~	Meta feedback file is returned indicating Linkage Discovery Errors have been
	Perform Linkage and Out of Sequence checks			detected; Error Data Feedback File is returned with errors.

H.2: File Feedback (JSON)

The tables below illustrate examples of file feedback associated with all stages of processing when an Industry Member submits a Data File in JSON format.

Table 189: Data File Submission Successful - No Errors

File Submission Succe	essful – No Errors	(JSON)	
Submission Files		Submission FileName	
Data File		SUBID_MYID_20170307_0	OrderEvents_000123.json.bz2
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents
Acknowledgement	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ack.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>
Integrity	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .integrity.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>
Ingestion	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ingestion.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "INGESTION",</pre>

File Submission Success	stul – No Erro	rs (JSON)	
			"stageCompleteTimestamp": "20170307T154152.000001089",
			"status": "Success",
			"errorCount": 0,
			"totalRecordsCount": 6543
			}
	Data	None	None
inkage Discovery	Meta	SUBID_MYID_20170307 _OrderEvents.linkag e_000001.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "stage": "LINKAGE", "stageCompleteTimestamp": "20170308T104152.000001089", "status": "Success", "errorCount": 0, "errorDetails": [</pre>
	Data	None	None

Table 190: Acknowledgement Error for Data File

Acknowledgement Error (JSON)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_201703.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	n/a	SUBID_MYID_201703.ack.error	Empty	
Integrity	Meta	None	None	
Ingestion	Data	None	None	
Linkage Discovery	Data	None	None	

Table 191: Integrity Error of Data File

Integrity Error of Data File (JSON)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_Order	SUBID_MYID_20170307_OrderEvents_000123.json.bz2	
Feedback Type Feedback FileName File Type		Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307_Ord erEvents_000123.ack.jso n		
Integrity	Meta	SUBID_MYID_20170307_Ord erEvents_000123.integri ty.json	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID",</pre>	

Integrity Error of Data File (JSON)					
			<pre>"fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure", "severity": "Error", "code": [1104] }</pre>		
Ingestion	Data	None	None		
Linkage Discovery	Data	None	None		

Table 192: Ingestion Error – Data File Not Readable

Ingestion Error - Data File Not Readable (JSON)				
Submission File Type		Submission FileName		
Data File		SUBID_MYID_20170307_0	rderEvents_000123.json.bz2	
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307_ OrderEvents_000123.a ck.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>	
Integrity	Meta	SUBID_MYID_20170307_ OrderEvents_000123.i ntegrity.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>	
Ingestion	Meta	SUBID_MYID_20170307_ OrderEvents_000123.i ngestion.json	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "INGESTION", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure", "severity": "Error", "code": 2153 }</pre>	

Ingestion Error - Data File Not Readable (JSON)					
	Data None None				
Linkage Discovery Data None None					

Table 193: Ingestion and Linkage Errors

Ingestion and Linkage I	Ingestion and Linkage Errors (JSON)				
Submission Files		Submission FileName			
Data File		SUBID_MYID_20170307_0	rderEvents_000123.json.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents		
Acknowledgement	Meta	SUBID_MYID_20170307_ OrderEvents_000123.a ck.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>		
Integrity	Meta	SUBID_MYID_20170307_ OrderEvents_000123.i ntegrity.json	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>		
Ingestion	Meta	SUBID_MYID_20170307_ OrderEvents_000123.i ngestion.json	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307,</pre>		

Ingestion and Linkage E	rrors (JSON)		
			<pre>"fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "INGESTION", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success", "errorFileName": "SUBID_MYID_20170307_OrderEvents_000123.ingestion.error.json.bz2", "errorCount": 2, "totalRecordsCount": 6543" }</pre>
	Error	SUBID_MYID_20170307_ OrderEvents_000123.i ngestion.error.json. bz2	<pre>{ "errorCode": [2001,2002] "actionType": "RPR" "errorRoEID": 123456 "errorRecord": {<error record="">} }, { "errorCode": [2003] "actionType": "RPR" "errorROEID": 123457 "errorRecord": {<error record="">} }</error></error></pre>
Linkage Discovery	Meta	SUBID_MYID_20170307_ OrderEvents_000001.1 inkage.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "stage": "LINKAGE", "stageCompleteTimestamp": "20170308T114152.000001089", "status": "Failure", "errorFileName": "SUBID_MYID_20170307_OrderEvents.linkage.error_000001.json.bz2", "errorCount": 2, "errorDetails": [</pre>

```
Ingestion and Linkage Errors (JSON)
                                                               "linkageType": "Exchange",
                                                               "errorTypeCount": 0
                                                               "linkageType": "Trade",
                                                               "errorTypeCount": 0
                                                           "doneForDay": true
                                  SUBID MYID 20170307
                     Error
                                                           "errorCode": [3002,3003]
                                  OrderEvents.linkage.
                                                           "actionType": "RPR"
                                  error 000001.json.bz
                                                           "errorROEID": 123456
                                                           "errorRecord": {<errorRecord>}
                                                           "errorCode": [8010]
                                                           "actionType": "RPR"
                                                           "errorROEID": 123457
                                                           "errorRecord": {<linkage key information>}
```

Table 194: Integrity Success –Data File Delete Instruction

Integrity Success -Da	Integrity Success -Data File Delete Instruction (JSON)				
Submission Files		Submission FileName			
Data File - Empty		SUBID_MYID_20170307_	_20170307_OrderEvents_000123.DEL.json.bz2		
Feedback Type	Feedback File Type	Feedback FileName Feedback File Contents			
Acknowledgement	Meta	SUBID_MYID_2017030 7_OrderEvents_0001 23.DEL.ack.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.DEL.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089",</pre>		

Integrity Success -D	Integrity Success –Data File Delete Instruction (JSON)				
			"status": "Success" }		
Integrity	Meta	SUBID_MYID_2017030 7_OrderEvents_0001 23.DEL.integrity.j	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.DEL.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>		
Ingestion	Data	None	None		
Linkage Discovery	Data	None	None		

Table 195: Integrity Error – Invalid File Delete Instruction

Integrity Error – Invalid File Delete Instruction (JSON)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_0	OrderEvents_000123.DEL.json.bz2	
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .DEL.ack.json	<pre>"feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.DEL.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_ACKNOWLEDGEMENT", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre>	
Integrity	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .DEL.integrity.json	<pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.DEL.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure", "severity": "Error", "code": 1120 }</pre>	
Ingestion	Data	None	None	
Linkage Discovery	Data	None	None	

H.3: File Feedback (CSV)

The tables below illustrate examples of file feedback associated with all stages of processing when an Industry Member submits a Data File in CSV format.

Table 196: Data File Submission Successful - No Errors

Data File Submission Successful – No Errors (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_	OrderEvents_000123.csv.bz2	
Feedback Type	Feedback File Type	Feedback FileName Feedback File Contents		
Acknowledgement	Meta	SUBID_MYID_2017030 7_OrderEvents_0001 23.ack.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089, Success,,,,,,,	
Integrity	Meta	SUBID_MYID_2017030		
Ingestion Meta		SUBID_MYID_2017030 7_OrderEvents_0001 23.ingestion.csv	4.1.0,SUBID,MYID,20170307,SUBID_MYID_20170307_OrderEvents_000123.csv.bz2,20170307T153552.000001089,INGESTION,20170307T154152.000001089,Success,,,0,,,,6543	
Data Non		None	None	
Linkage Discovery	Meta	SUBID_MYID_2017030 7_OrderEvents.link age_000001.csv	4.1.0, SUBID, MYID, 20170307,,, LINKAGE, 20170308T104152.000001089, Success,,,,0, Intrafirm@0 Interfirm@0 Exchange@0 Trade@0,true,	
	Data	None	None	

Table 197: Acknowledgement Error for Data File

Acknowledgement Error for Data File (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_201703.bz2		
Feedback Type Feedback File Type		Feedback FileName	Feedback Content	
Acknowledgement	Acknowledgement n/a		Empty	
Integrity Meta		None	None	
Ingestion Data		None	None	
Linkage Discovery	Linkage Discovery Data		None	

Table 198: Integrity Error of Data File

Integrity Error of Data File (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_OrderEvents_000123.csv.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ack.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089, Success,,,,,,,	
Integrity	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .integrity.csv	4.1.0,SUBID,MYID,20170307,SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089,FILE_INTEGRITY,20170307T154152.000001089, Failure,Error,1104,,,,	
Ingestion	Data	None	None	
Linkage Discovery	Data	None	None	

Table 199: Ingestion Error – Data File Not Readable

Ingestion Error – Data File Not Readable				
Submission File Type		Submission FileName		
Data File		SUBID_MYID_20170307_OrderEvents_000123.csv.bz2		
Feedback Type	Feedback File Type	Feedback FileName Feedback File Contents		
Acknowledgement	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ack.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089, Success,,,,,,,	
Integrity	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .integrity.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_INTEGRITY, 20170307T154152.000001089, Success	
Ingestion	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ingestion.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, ,INGESTION, 20170307T154152.000001089, Failure, Error, 2153,,,,,	
	Data	None	None	
Linkage Discovery	Data	None	None	

Table 200: Ingestion and Linkage Errors

Ingestion and Linkage Errors (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_OrderEvents_000123.csv.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ack.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089, Success,,,,,,	
Integrity	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .integrity.csv	4.1.0, SUBID, MYID, 20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, FILE_INTEGRITY, 20170307T154152.000001089, Success	

Ingestion and Linkage Errors (CSV)			
Ingestion	Meta	SUBID_MYID_20170307 _OrderEvents_000123 .ingestion.csv	4.1.0,SUBID,MYID,20170307,SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089, INGESTION,20170307T154152.000001089,Success,, SUBID_MYID_20170307_OrderEvents_000123.ingestion.error.csv.bz2,2,,,,6543
	Error	SUBID_MYID_20170307 _OrderEvents_000123 .ingestion.error.cs v.bz2	2001 2002,RPR,123456, <error record=""> 2003,RPR,123457,<error record=""></error></error>
Linkage Discovery	Meta	SUBID_MYID_20170307 _OrderEvents.linkag e_000001.csv	4.1.0,SUBID,MYID,20170307,,,LINKAGE,20170308T104152.000001089,Failure,,, SUBID_MYID_20170307_linkage_OrderEvents.linkage.error_000001.csv.bz2,2, Intrafirm@1 Interfirm@1 Exchange@0 Trade@0,true,
	Error	SUBID_MYID_20170307 _OrderEvents.linkag e.error_000001.csv. bz2	3002 3003,RPR,123456, <error record=""> 8010,RPR,123457,<linkage information="" key=""></linkage></error>

Table 201: Integrity Success - Data File Delete Instruction

Integrity Success -Data File Delete Instruction (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307_Ord erEvents_000123.DEL.ack .csv	4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2, 20170307T153552.000001089,FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089,Success,,,,,,,	
Integrity	Meta	SUBID_MYID_20170307_Ord erEvents_000123.DEL.int egrity.csv	4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2, 20170307T153552.000001089,FILE_INTEGRITY, 20170307T154152.000001089,Success,,,,,,,	
Ingestion	Data	None	None	
Linkage Discovery	Data	None	None	

Table 202: Integrity Error – Invalid File Delete Instruction

Integrity Error – Invalid File Delete Instruction (CSV)				
Submission Files		Submission FileName		
Data File		SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2		
Feedback Type	Feedback File Type	Feedback FileName	Feedback File Contents	
Acknowledgement	Meta	SUBID_MYID_20170307_Ord erEvents_000123.DEL.ack .csv	4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2, 20170307T153552.000001089,FILE_ACKNOWLEDGEMENT, 20170307T154152.000001089,Success,,,,,,,	
Integrity of Data File	Meta	SUBID_MYID_20170307_Ord erEvents_000123.DEL.int egrity.csv	4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.DEL.csv.bz2, 20170307T153552.000001089,FILE_INTEGRITY, 20170307T154152.000001089,Failure,Error,1120,,,,,	
Ingestion	Data	None	None	
Linkage Discovery	Data	None	None	