

CAT Reporting Technical Specifications for Industry Members

3/31/2025

Version 4.1.0 r7

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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 representative order was originated specifically to represent a single order (received either from a customer or another broker-dealer) and there is: 1) an 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 | Special Handling instructions on Route Reports (limited to a defined set of values) |
| | Reporting changes to client instructions regarding modifications to algorithms |
| | 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 paired orders | Simple options manual 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. |

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.

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| | 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. |

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|---|
| Phase 2e – 7/11/2022² |
| Remainder of Customer and Account information |

² For the most recent information on the Phase 2e reporting timeline, see [CAT Alert 2022-01](#).

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

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

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

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

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

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

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

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

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

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

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| | | | <p>Added <i>priorDeskOrderID</i> to MEIM, MOIM, and MLIM events</p> <p>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 <i>deskOrderID</i> and <i>priorDeskOrderID</i></p> <p>Updated <i>tapeTradeID</i> from Conditional to Required on MOOT event</p> <p>Ungrayed MLOE event and related updates</p> <p>Updated Data Ingestion Error Code 2100</p> <p>Added Data Ingestion Error Codes 2227 – 2230</p> <p>Updated <i>handlingInstruction</i> 'CASH' from Boolean to Name/Value Pair</p> <p>Eliminate the Requirement for the Submission of a Metadata File paired with a Data File</p> <p>Updated Section 6, Section 7, and Appendix H to reflect:</p> <ul style="list-style-type: none"> • Removal of requirements for the submission of a Metadata File • Elimination of Metadata File and Data File pairing integrity error codes • Indication that the <i>metaFileName</i> currently provided for Data Files in File Integrity Feedback and Data Ingestion Feedback will be null beginning December 5, 2022 • Addition of <i>totalRecordsCount</i> for Data Ingestion Feedback files <p>Updated Error Codes 1101, 1107, 1110-1116, 1121-1127, and 2151</p> <p>Support Use of FINRA ADF</p> <p>Updated Section 2.6.3</p> <p>Updated MENQ event to change <i>firmDesignatedID</i> and <i>accountHolderType</i> from Required to Conditional</p> <p>Updated MENQ event to: add <i>representativeQuoteInd</i>, <i>askAggregatedOrders</i>, and <i>bidAggregatedOrders</i></p> <p>Added New Quote Supplement (MENQS) event</p> <p>Updated MERQ event to: add <i>destinationType</i> and <i>session</i>; definition of <i>destination</i>; add <i>session</i> to Quote Route Key</p> <p>Added Quote Route Supplement (MERQS) event</p> <p>Updated Error Codes 2019 and 2093 to account for new <i>destinationType</i> value of 'D'</p> <p>Added new Error Codes 2231-2243 for validations on new MENQS and MERQS events</p> <p>Updated Data Dictionary to: update definition of <i>destination</i>; add <i>destination</i> value of 'ADF'; add <i>destinationType</i> value of 'D'; add other new terms in support of new and updated events</p> |
| 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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| | | | <p>effective until March 27, 2023, including:</p> <ul style="list-style-type: none"> Updated MENQ event to change <i>firmDesignatedID</i> and <i>accountHolderType</i> from Conditional to Required with note that field will become Conditional March 27, 2023 Grayed out content in Section 2.6.3; Section 4 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 <p>Updated ADF-related language to refer to “Industry Member” rather than “ATS” specifically</p> |
| 4.0.0 r18 | 12/16/2022 | Consolidated Audit Trail, LLC | <p>Ungrayed ADF changes and associated Error Codes from version 4.0.0.r16 to reflect their effectiveness with version 4.0.0 r18</p> <p>Updated MENQ event to change <i>firmDesignatedID</i> and <i>accountHolderType</i> from Required to Conditional</p> <p>Added clarifications to Section 2.4.2.1 for FDID Validation</p> <p>Added <i>side</i> to Exchange Trade Linkage Key for MEOT event</p> <p>Updated Section 7.5.1.7 to reflect that the Linkage Error Summary File contains FDID validation errors and not rejections</p> <p>Updated Section 7.6.4 File Deletion instructions to clarify the meta file is optional</p> <p>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’</p> <p>Updated Error Code 3702 to include Event Date on allocation events</p> <p>Incorporated minor typographical and formatting errors throughout the document</p> |
| 4.0.0 r19 | 4/11/2023 | Consolidated Audit Trail, LLC | <p>Added Footnote to Table 1 Industry Specifications Phased Approach with reference to CAT Alert 2022-01</p> <p>Added Footnote to Section 2.4.2.1 FDID Validations with reference to the Transaction Scope and Release Schedule</p> <p>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.</p> <p>Added validations in Section 3.5.2 requiring the ‘SW’ and ‘SWQ’ <i>handlingInstructions</i> to be paired with Values greater than zero, and made conforming updates to Appendix G Data Dictionary</p> <p>Clarified reporting requirements in Section 5.2.8 regarding reporting a MLOS event once the FDID becomes available</p> <p>Clarified Rule 7 in Section 7.5 regarding full duplicates submitted outside the Processing Window</p> <p>Added validations requiring the ‘CASH’</p> |

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| | | | <p><i>handlingInstructions</i> to be paired with a Value greater than zero and 'DISP' <i>handlingInstructions</i> to be paired with a Value greater than or equal to zero in Appendix G Data Dictionary</p> <p>Updated <i>quantity</i> field definition in Appendix G Data Dictionary regarding timing for future validation related to cash orders.</p> <p>Updated description to Error Codes 2101 and 2036 description to include valid paired Value</p> <p>Elimination of Metadata File support</p> <p>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</p> <ul style="list-style-type: none"> • 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: Metadata 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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| | | | <p>Clarified Data File submission rules and requirements</p> <p>Coinciding with the elimination of Metadata File support, the following Data File rules were updated:</p> <ul style="list-style-type: none"> • 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 <p>Support Use of FINRA ADF</p> <ul style="list-style-type: none"> • 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 <i>unpricedInd</i> 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 <i>unsolicitedInd</i> field from required to conditional and updated description that the field must be blank when the <i>representativeQuoteInd</i> is populated • Clarified in Section 4.10.1 that the <i>representativeQuoteInd</i>, <i>askAggregatedOrders</i>, and <i>bidAggregatedOrders</i> 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 <i>destinationType</i> and <i>session</i> 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 <i>errorType</i> of ERREX applies to Display-Only Facility Feedback |

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| | | | <ul style="list-style-type: none"> 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 | <p>Added footnotes to Table 1 Industry Specifications Phased Approach and Section 3.4.1 Scope</p> <p>Updated <i>cancelQty</i> definition to be consistent on all applicable events</p> <p>Removed or grayed out additional references to Metadata file-related functionality and processing</p> <p>Clarified the reporting requirements when Industry Member not able to merge the manual and electronic information in a single manual event and elects to report the duplicate electronic message independently in Section 3.2.2 Manual CAT Events Followed by Separate Electronic Messages</p> <p>Updated Section 2.4.4.1 FLEX Percent Options Symbols clarifying the FLEXPCT options</p> <p>Support Use of MEMX Options Exchange (Industry Test – 7/3/2023, Production – 9/11/2023)</p> <ul style="list-style-type: none"> Added Members Exchange Options (MEMXOP) to <i>destination</i>, <i>marketID</i>, and <i>senderIMID</i> <p>Year-End Release Changes (Industry Test – 9/25/2023, Production – 12/11/2023)</p> <ul style="list-style-type: none"> Added Error Code 2247 for Invalid Combination of <i>quantity</i> and 'CASH' <i>handlingInstruction</i> Added <i>manualFlag</i> and <i>electronicTimestamp</i> to MECO, MECOM, MECOC, MOCO, MOCOM, MOCOC, MLCO, MLCOM, and MLCOC for optional reporting of electronic timestamp for manual child orders. Updated MEQRS event to change <i>routedQuoteID</i> from Conditional to Required to support use of FINRA ADF <p>Electronic RFQ Reporting (Industry Test – 2Q2024, Production – 3Q2024)</p> <p>The following RFQ related changes made in version 4.0.0 r.20 are grayed out to clarify that they will not be effective until August 1,2024:</p> <ul style="list-style-type: none"> Updated Table 5: Linkage Keys to include <i>optionID</i> and <i>RFQID</i> in the Quote Key Updated Table 7: Summary of Route and TRF Linkage Key to include RFQ route linkage keys Updated section 3.4.1 RFQ Scope to include Multi-Leg activities and added footnote of the RFQ Reporting requirements beginning August 1, 2024 Added reference to RFQ Platforms in the Quote |

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| | | | <p>Route Key</p> <ul style="list-style-type: none"> • Updated section 4.10 through 4.10.7 to include the reporting of quotes in electronic RFQ responses • Added <i>RFQID</i>, <i>RFQFlag</i>, <i>relativePrice</i> fields in MENQ, MERQ, MEQR, and MEQM events • Added guidance on how to populate the <i>relativePrice</i> and <i>RFQFlag</i> on the MENQ, MERQ, MEQR, and MEQM events • Updated 4.10.5 to Quote Received/Replace Event • Added <i>RFQID</i> 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 <i>RFQID</i>, <i>RFQFlag</i>, <i>quotePriceType</i>, and <i>relativePrice</i> • Added Error Code 2252 for Invalid Combination of <i>destinationType</i> and <i>RFQFlag</i> • Updated Appendix F: Glossary to include new added quote events in the Primary Event and Secondary Events section • Updated <i>destinationType</i> in the Appendix G: Data Dictionary to include Allowed Values for Quote Events • Added <i>quotePriceType</i>, <i>relativePrice</i>, and <i>RFQFlag</i> in the Data Dictionary • Added the Options and Multi-Leg Quote events in the <i>type</i> field name in the Appendix G: Data Dictionary • Renumbered the Table #s to reflect the new |

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| | | | added tables |
| 4.1.0 | 11/30/2023 | Consolidated Audit Trail, LLC | <p>Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024)</p> <ul style="list-style-type: none"> • 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 <i>validUntilDuration</i> 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 <i>quoteID</i> field for Section 5.2.8.3 • Removed 'D' from the <i>destinationType</i> 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 <i>senderType</i> to MEQR, MOQR, and MLQR events • Updated the description of the <i>receivedQuoteID</i> 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 <i>bidRelativePrice / askRelativePrice</i> • Added Error Code 2253 for Invalid combination of <i>bidRelativePrice / askRelativePrice</i> • Clarified the description for <i>unpricedInd</i> in MENQ, MERQ, MEQR, and MEQM events • Updated Error Code 2045 and all applicable events to remove the <i>minQty</i> field requirement that values must be greater than zero <p>Handling Instructions Update (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – April 29, 2024)</p> <ul style="list-style-type: none"> • Updated the Data Dictionary description for 'IDX' for retirement and 'AOK' must be paired with 'AUC' or 'AucResp' <i>handlingInstructions</i>. • Added new 'AUC', 'APCL', and 'APCM' |

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| | | | <i>handlingInstructions</i> values. |
| 4.1.0 r1 | 1/26/2024 | Consolidated Audit Trail, LLC | Corrected the JSON sample in Section 7.5.2.JSON Examples for Linkage Discovery Feedback by removing an unintended comma in the Error Summary File Contents sample and Error Data Feedback File Contents sample |
| 4.1.0 r2 | 3/28/2024 | Consolidated Audit Trail, LLC | <p>Updated description of Real Quantity Data Type in Table 3: Data Types to reflect that trailing zeroes are not rejected</p> <p>Updated and clarified Section 2.4.2.1 FDID Validation regarding validations and deployment to Production environment</p> <p>Updated <i>representativeInd</i> and <i>fulfillmentLinkType</i> fields values 'YE' and 'YP' throughout to reflect extension of exemptive relief from July 31, 2024 to January 31, 2025.</p> <p>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.</p> <p>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 <i>handlingInstructions</i> values and identified the specific <i>handlingInstructions</i> values.</p> <p>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</p> <p>Corrected Linkage Keys in Section 5.1.11: Option Trade Event.</p> <p>Added FAQ references to 'AOK' <i>handlingInstructions</i> value description</p> <p>Corrected 'GTC' <i>timeInForce</i> value as Boolean Value in Appendix G: Data Dictionary</p> <p>Auction-Related Handling Instructions (Industry Test – January 22, 2024, Production – February 5, 2024, Compliance Date for CAT Reporting – July 1, 2024)</p> <ul style="list-style-type: none"> Updated the Data Dictionary descriptions for 'AUC', 'APCL', and 'APCM' <i>handlingInstructions</i> values. The compliance date for reporting the instructions that are communicated over an exchange port configured for 'AUC', 'APCL' and 'APCM' <i>handlingInstructions</i> 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, 2023 Exemptive Order (Release No. 34-98848). <p>Retirement of 'IDX' and Addition of 'PCTPX' Handling Instructions (Industry Test –May 13, 2024, Production</p> |

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| | | | <p>–July 1, 2024, Compliance Date for CAT Reporting – July 1, 2024)</p> <ul style="list-style-type: none"> <li>• Rescheduled removal of ‘IDX’ <i>handlingInstructions</i> value <li>• Added new ‘PCTPX’ <i>handlingInstructions</i> value <li>• Added Section 3.9: Percentage-Based Prices <li>• Removed existing reference to FLEXPCT options from <i>price</i> field description on applicable events <p>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)</p> <ul style="list-style-type: none"> <li>• Removed ‘ND’ <i>handlingInstructions</i> 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. <li>• The Industry Member compliance date to discontinue use of ‘ND’ in CAT reporting is July 29, 2024. <li>• Updated Section 4.11: Trade that capacity of ‘P’ must be reported when the firm is internalizing a trade. Updated <i>capacity</i> and <i>firmDesignatedID</i> field descriptions on MEOT and MOOT events that <i>capacity</i> of ‘P’ must be reported when Industry Member is reporting an internalized trade. <li>• Added Error Codes 2258 and 2259. <p>Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024)</p> <ul style="list-style-type: none"> <li>• Updated Name of Section 2.6.3.4: Routing to Foreign Destinations and U.S. non-CAT Reporting Entities and included information on how <i>destinationType</i> and <i>senderType</i> values of ‘N’ or ‘S’ on quote events will be used to suppress linkage. <li>• 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) <li>• Corrected Linkage Keys in Sections 5.1.10.4 and 5.2.8.4 <li>• Corrected Sequence numbers in Table 129: Leg Details |

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| | | | <ul style="list-style-type: none"> • Corrected the <i>bidRelativePrice</i> field data type on MERQ event to Name/Value Pairs • Corrected field description references to <i>bidRelativePrice</i> and <i>askRelativePrice</i> fields on the <i>bidPrice</i> and <i>askPrice</i> fields on MONQ, MORQ, MOQR and MOQM events • Clarified <i>destinationType</i> description on MORQ and MLRQ events • Clarified descriptions of <i>initiator</i>, <i>manualFlag</i> and <i>electronicTimestamp</i> fields on MEQC event • Removed Exchange ID Data Type reference from the <i>senderIMID</i> field data type on MOQM and MLQM events • Updated <i>senderType</i> description on MEQR event. • Updated the descriptions to the <i>bidRelativePrice</i> and <i>askRelativePrice</i> fields on applicable events and in Appendix G: Data Dictionary • Updated description and clarified requirements of <i>unsolicitedInd</i> field description on MENQ, MEQR and MEQM events • Updated description and clarified requirements of <i>unpricedInd</i> field on MENQ, MERQ, MEQR and MEQM events • Updated descriptions and requirements that the <i>RFQFlag</i> must be 'true' when <i>RFQID</i> field is populated, and that the <i>RFQID</i> field must be populated when the <i>RFQFlag</i> is 'true' on the MENQ event • Changed the <i>validUntilDuration</i> field from Numeric (4, 6) to Real Quantity data type and clarified the description on applicable events and in Appendix G: Data Dictionary • Changed <i>RFQID</i> field from required to conditional on MEQM event • Changed <i>quotePriceType</i> field from required to conditional on MLNQ event • Changed <i>destination</i> 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 <i>senderIMID</i> from required to conditional and updated description on MEQR, MOQR, MLQR and updated description on when field not required • Changed <i>destinationType</i> 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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| | | | <p>Support Use of Sapphire Options Exchange (Pending Approval) (Industry Test – June 24, 2024, Production – August 12, 2024)</p> <ul style="list-style-type: none"> Added MIAX Sapphire Options Exchange ('SPHR') to <i>destination</i>, <i>marketID</i>, and <i>senderIMID</i> (Pending SEC Approval) |
| 4.1.0 r3 | 7/24/2024 | Consolidated Audit Trail, LLC | <p>Updated Electronic RFQ Reporting (Industry Test – May 13, 2024, Production – July 29, 2024) to reflect Granting of Temporary Conditional Exemptive Relief</p> <ul style="list-style-type: none"> 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 <i>askRelativePrice</i>, <i>bidRelativePrice</i>, <i>RFQFlag</i> and <i>validUntilDuration</i> 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”. <p>Sapphire Options Exchange (Industry Test – June 24, 2024, Production – August 12, 2024)</p> <ul style="list-style-type: none"> Removed the 'Pending SEC Approval' text for SPHR: MIAX Sapphire Options Exchange in <i>destination</i>, <i>marketCenterID</i>, and <i>senderIMID</i> fields |
| 4.1.0 r4 | 10/18/2024 | Consolidated Audit Trail, LLC | <p>Clarify description of Boolean Data Type in Table 3: Data Types when field is optional, conditional or required</p> <p>Update the description of 'BIN' <i>handlingInstructions</i> value in Appendix G: Data Dictionary</p> <p>Update <i>feedbackVersion</i> in various examples</p> |

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| | | | <p>Second Quarter Release (Industry Test – January 27, 2025, Production – April 14, 2025)</p> <ul style="list-style-type: none"> Retire the ‘MAO’, ‘MAC’, ‘AOB’ and ‘MOB’ <i>handlingInstructions</i> values Add Boolean <i>BFMMFlag</i> 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 | <ul style="list-style-type: none"> Updated <i>representativeInd</i> and <i>fulfillmentLinkType</i> 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. |
| 4.1.0 r6 | 3/21/2025 | Consolidated Audit Trail, LLC | <p>Second Quarter Release (Industry Test – January 27, 2025, Production – April 14, 2025)</p> <ul style="list-style-type: none"> Added Error Codes 2263 and 2264 related to <i>BFMMFlag</i>. Added Error Codes 2265, 2266, 2267, 2268 related to the <i>BFMMFlag</i> (Industry Test – March 17, 2025). The compliance date for <i>BFMMFlag</i> reporting is July 1, 2025. Updated the description for <i>BFMMFlag</i> throughout the document to allow for <i>accountHolderType</i> of ‘O’, ‘P’ or ‘X’. Added effective date of April 14, 2025, for the retirement of Interfirm Linkage Warning Code 897 Early Reported Event. (Industry Test – March 3, 2025). <p>Updates and Clarifications</p> <ul style="list-style-type: none"> Clarified the description to using <i>fulfillmentLinkType</i> of ‘YP’ to applicable orders. Updated the description for <i>accountHolderType</i> in Appendix G to conform to all references of <i>accountHolderType</i> throughout the document. Incorporated minor typographical and formatting errors throughout the document. |
| 4.1.0 r7 | 3/31/2025 | Consolidated Audit Trail, LLC | Updated NYSE Chicago to the rebranded name NYSE Texas. |

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| | | | Incorporated minor typographical and formatting errors throughout the document. |

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>.

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 [Registration Form](#) is available on the CAT Public Website, along with additional information on the registration process. Contact help@finracat.com for any questions regarding the registration process.

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 [Section 2.6.1](#).

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

1. **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 [Section 7.6](#) 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](#).
5. 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 [Section 2.6.3.1](#) 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 [CAT FAQ M2](#) for more information on the prohibition on use of actual account numbers, and [CAT FAQs M10](#) and [M14](#) for more information on masking. Also, refer to the [CAT Industry Presentation on FDID](#) 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 [CAT FAQ M16](#) for more information on replacing/changing an FDID.

Refer to [Section 4.2](#) and [Section 5.1.2](#) 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 [CAT Reporting Customer and Account Technical Specifications for Industry Members](#) and the [CAT CAIS Industry Member Reporting Scenarios](#) 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 [CAT 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 [Table 148: Reporting Deadline Examples](#) 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 [CAT Public Website](#).

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 is 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 | P |
| 15-19 | 5 | Strike Price | Strike Price is represented as a percentage of closing price 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

| | | | | |
|-------|---|----------------|--|---------|
| 20-22 | 3 | Strike Decimal | Strike Decimal is used to hold decimal values as part of the percentage of closing price for FLEXPCT options. 3-character field buffered with trailing zeros. | 000 = 0 |
|-------|---|----------------|--|---------|

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 is 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 | P |
| 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|SPXW 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 [Industry Member Schema](#) (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 -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 |
|----------------|-----------|---|
| | | <p>digits before the decimal point and a maximum of 4 digits after the decimal point.</p> <p>Examples which comply with Numeric (6,4) include:</p> <p>-999999.9999 -0.1 0 0.0001 100 100.100 999999.99 0.25 099999.9990 0999999.99990</p> <p>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).</p> <p>Examples which do not comply with Numeric (6,4) include:</p> <p>1234567.0 .123 1.12345 10. 40a</p> <p>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):</p> <p>1234.5 1234.0</p> |
| Price | NUMBER | Numeric (10,8), which supports prices in the inclusive range from -9999999999.99999999 to 9999999999.99999999. See FAQ 19 for details on reporting prices to CAT that are in non-U.S. dollar currency. |
| 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 |

| Data Type | JSON Type | Description |
|--------------|---------------------------|--|
| | | <code>false</code> (no quotation marks). If the field is optional or conditional and no value is reported, then the value is considered <code>false</code> in CSV representation. In JSON representation, if the field is not present, the value is considered <code>false</code> 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 | <p>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).</p> <p>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.</p> <p>When represented in JSON, the following rule applies: Backslash <code>\</code> 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: <code>routedOrderID = 1234\ABCD</code> must be reported to CAT as <code>"routedOrderID": "1234\ABCD"</code>. If the backslash is not escaped, it will be omitted from the string. For example, if the following is reported to CAT, <code>"routedOrderID": "1234\ABCD"</code>, it will be stored as <code>routedOrderID = 1234ABCD</code>. Escape characters do not participate in the field value length.</p> |
| Date | NUMBER | An 8-digit integer representing the date in YYYYMMDD. |
| Timestamp | STRING or Unsigned NUMBER | <p>A timestamp represents a moment in time. Two timestamp formats are supported including STRING and NUMBER.</p> <p>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).</p> <ul style="list-style-type: none"> 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. <p>Examples which comply with Timestamp in STRING format:</p> <ul style="list-style-type: none"> 20190617T000120.000000000 20190617T000120 20190617T000120.000 |

| Data Type | JSON Type | Description |
|------------------|-----------|--|
| | | <ul style="list-style-type: none"> • 20170107T213000.123456789 • 20170107 213000.123456789 • 20190617 000120.123000000 <p>Examples which do not comply with Timestamp in STRING format:</p> <ul style="list-style-type: none"> • 20190617T0120 • 20190617T000120. <p>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.</p> <p>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.</p> <p>Examples which comply with Timestamp in NUMBER format:</p> <ul style="list-style-type: none"> • 1483842600123456789 <p>Examples which do not comply with Timestamp in NUMBER format:</p> <ul style="list-style-type: none"> • 20190617T000120 • 20190617 000120 |
| Name/Value Pairs | OBJECT | <p>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 <i>handlingInstructions</i> and <i>timeInForce</i> Name/Value fields.</p> <p>When represented in JSON, the following rules apply:</p> <ul style="list-style-type: none"> • 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 <i>handlingInstructions</i> 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. <p>For example, <i>handlingInstructions</i> are represented as follows in JSON: "handlingInstructions":{</p> |

| Data Type | JSON Type | Description | | | | | | | | | |
|-----------|---|---|---|------------------------------------|--------------|---|---|----------------------------|---|-----------------------------|-----|
| | | <p>"AOK": true, "DISP": 10.00, "TMO": "20190419T092316.123456789", "AucResp": "AuctionID456" "DLVT": ["MM1", "MM2", "MM3"] }</p> <p>When represented in CSV, the following rules apply:</p> <ul style="list-style-type: none"> • The OBJECT is represented in a single position delimited by comma. • Name/Value Pairs are pipe delimited. • A Boolean attribute should only include the Name. For example, if a <i>handlingInstructions</i> 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. • A Name with multiple values must include an '@' delimiter separating each Value. • 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). <p>In CSV, <i>handlingInstructions</i> is represented as: AOK DISP=10.00 TMO=20190419T092316.123456789 AucResp=AuctionID456 DLVT=MM1@MM2@MM3</p> <p><i>timeInForce</i> 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:</p> <p>Ex</p> <table border="0"> <tr> <td style="padding-right: 20px;">1</td> <td style="padding-right: 20px;">"timeInForce":{"DAY": 20190528}</td> <td>DAY=20190528</td> </tr> <tr> <td>2</td> <td>"timeInForce":{"GTT": "20190528T160000.000000"}}</td> <td>GTT=20190528T160000.000000</td> </tr> <tr> <td>3</td> <td>"timeInForce":{"IOC": true}</td> <td>IOC</td> </tr> </table> | 1 | "timeInForce":{"DAY": 20190528} | DAY=20190528 | 2 | "timeInForce":{"GTT": "20190528T160000.000000"}} | GTT=20190528T160000.000000 | 3 | "timeInForce":{"IOC": true} | IOC |
| 1 | "timeInForce":{"DAY": 20190528} | DAY=20190528 | | | | | | | | | |
| 2 | "timeInForce":{"GTT": "20190528T160000.000000"}} | GTT=20190528T160000.000000 | | | | | | | | | |
| 3 | "timeInForce":{"IOC": true} | IOC | | | | | | | | | |
| Array | ARRAY | <p>A list of 0, 1 or more values of the same data type.</p> <p>When represented in JSON, the following rules apply:</p> <ul style="list-style-type: none"> • ARRAY is within a set of brackets [] • Elements within the array are comma separated. <p>For example, <i>atsOrderType</i> is represented as the following in JSON: "atsOrderType":["PEG", "midPEG"]</p> <p>When represented in CSV, the following rules apply:</p> <ul style="list-style-type: none"> • ARRAY is represented in a single position delimited by comma • Elements in the array are pipe delimited <p>When represented in CSV, it is: ,,,PEG midPEG,,,</p> | | | | | | | | | |

| Data Type | JSON Type | Description |
|---------------------------|-------------------------|---|
| Choice | STRING | A Text field with an explicit list of acceptable values. Appendix G: Data Dictionary lists the acceptable values for each Choice field. |
| Symbol | STRING | Text (22). Refer to Section 2.4.3 and Section 2.4.4 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 (IMID) | STRING | Text (16) – CRD and SRO-assigned Market Participant Identifier assigned by an SRO to one of its members. Formatted as <CRD of the Market Participant>:<SRO-assigned Market Participant Identifier>. 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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. <i>buyDetails</i> and <i>sellDetails</i> are two different fields. Each field is defined to contain an ARRAY that is limited to one object. For example, Trade Side Details (<i>buyDetails</i> and <i>sellDetails</i>) are represented as follows in JSON: <pre>"buyDetails" : [{"orderID" : "OrderABC", "orderKeyDate": "20190419T000000", "side" : "B"}], "sellDetails" : [{"side" : "SL",</pre> |

| Data Type | JSON Type | Description |
|--------------------------|-------------------------|--|
| | | <pre>"firmDesignatedID" : "Prop123", "accountHolderType" : "P"}]</pre> <p>When represented in CSV, refer to the following example:</p> <pre>,,,20190419T00000000@OrderABC@B@@@,@@S@@Prop123@P@ '''</pre> <p>Refer to Section 4.11.1 Table 49: Trade Side Details for the list of fields.</p> |
| 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 | <p>A compound object that consists of a list of data elements that represents one or more orders being aggregated. The <i>aggregatedOrders</i> field may include 0, 1, or more orders, with each order having a set of required data elements.</p> <p>For example, an <i>aggregatedOrders</i> will be presented as following in JSON:</p> <pre>"aggregatedOrders":[{"orderID" : "O1234", "orderKeyDate": "20190419T000000"}, {"orderID" : "O1235", "orderKeyDate" : "20190419T092316.123456789"}, {"orderID" : "O1236", "orderKeyDate" : "1483842600123450000", "quantity" : "800"}]</pre> <p>When represented in CSV, refer to the following example:</p> <pre>,,,O1234@20190419T000000@@ O1235@20190419T092316.123456789@@ O1236@1483842600123450000@800@,,,</pre> <p>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.</p> |

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 | 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 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 – Duplication of Order Keys results in the rejection of all 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. | <ul style="list-style-type: none"> <i>orderKeyDate</i> <i>CATReporterIMID</i> <i>symbol</i> (or <i>optionID</i>) <i>orderID</i> |
| 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. | <ul style="list-style-type: none"> <i>priorOrderKeyDate</i> <i>CATReporterIMID</i> <i>symbol</i> (or <i>optionID</i>) <i>priorOrderID</i> |
| 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. | <ul style="list-style-type: none"> <i>parentOrderKeyDate</i> <i>CATReporterIMID</i> <i>symbol</i> (or <i>optionID</i>) <i>parentOrderID</i> |

| Linkage Key | Description | Fields |
|--|---|--|
| Manual Order Key | Links an order event representing a duplicative electronic message to the previously reported order event representing the original manual order. | <ul style="list-style-type: none"> • <i>manualOrderKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>manualOrderID</i> |
| Trade, Fulfillment and Allocation Keys – Duplication of Trade, Fulfillment and Allocation Keys results in the rejection of all events with the same key. Duplication of TRF Linkage Keys results in unlinked errors for all records with the same key. | | |
| Trade Key | Links Trade events to related Trade Supplement events. | <ul style="list-style-type: none"> • <i>tradeKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> • <i>tradeID</i> |
| 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 <i>fulfillmentID</i> remains the same. | <ul style="list-style-type: none"> • <i>fillKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>fulfillmentID</i> |
| Prior Fulfillment Key | Links an Order Fulfillment event to a related Order Fulfillment Amendment event if a new <i>fulfillmentID</i> is assigned. | <ul style="list-style-type: none"> • <i>priorFillKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>priorFulfillmentID</i> |
| TRF Linkage Key | Links the Trade event reported by the Industry Member to the related media tape report in the TRF/ADF/ORF. | <ul style="list-style-type: none"> • Event Date • <i>CATReporterIMID</i> • <i>symbol</i> • <i>tapeTradeID</i> • <i>marketCenterID</i> |
| Allocation Key | Links CAT Post-Trade Allocation events to related Amended Allocation events if the <i>allocationID</i> remains the same. | <ul style="list-style-type: none"> • <i>allocationKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>allocationID</i> |
| Prior Allocation Key | Links CAT Post-Trade Allocation events to related Amended Allocation events if a new <i>allocationID</i> is assigned. | <ul style="list-style-type: none"> • <i>priorAllocationKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>priorAllocationID</i> |
| 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 – Duplication 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. | <ul style="list-style-type: none"> • <i>quoteKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol</i> (or <i>optionID</i>) • <i>quoteID</i> • <i>RFQID</i> (for RFQ flow) |

| Linkage Key | Description | Fields |
|---|---|--|
| Prior Quote Key | Links a quote event being modified to the previous quote. | <ul style="list-style-type: none"> • <i>priorQuoteKeyDate</i> • <i>CATReporterIMID</i> • <i>symbol (or optionID)</i> • <i>priorQuoteID</i> |
| 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 Section 2.6.3 below for more detailed descriptions. |
| Route Linkage Keys – Duplication of Route Linkage Keys will result in unlinked errors for all records having the same key | | |
| 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 Section 2.6.3 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 Section 2.6.3 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 sample 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 [CAT Industry Member Reporting Scenarios](#) document for detailed examples.

Table 6: Reporting Responsibilities of Sender/Receiver

| Scenario | Sender (Broker A) | | Receiver (Broker B or Exchange) | |
|---|--|---|--|--|
| | 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 <i>routeRejectedFlag</i> populated as 'true' | 2) Rejects the order from Broker A | N/A |
| Customer/Client Modification/Cancellation of a Previously Routed Order | | | | |
| 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 <i>requestTimestamp</i> in MEOM) and Route Modified event | 2) Receives Request from Broker A | Order Modification Request (or <i>requestTimestamp</i> in MEOM) |
| | 4) Receives confirmation from Broker B and updates OMS/EMS | Order Modified event (<i>eventTimestamp</i> in MEOM is the confirmation time) | 3) Confirms modification to Broker A | Order Modified event (<i>eventTimestamp</i> is the confirmation time) |
| Customer/client of Broker A requests to modify an order previously routed to Broker B Broker A cancels the route and sends a new route to Broker B | 1) Receives the customer/client modification request and routes cancel/new order to Broker B | Order Modification Request (or <i>requestTimestamp</i> in MEOM), Route Cancelled, and Order Route | 2) Receives the cancel/new order request from Broker A | Order Cancel Request (or <i>requestTimestamp</i> in MEOC) |
| | 4) Receives confirmation from Broker B and updates OMS/EMS | Order Modified (<i>eventTimestamp</i> in MEOM is the confirmation time) | 3) Confirms cancel/new order to Broker A | Order Cancelled (<i>eventTimestamp</i> 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 <i>requestTimestamp</i> in MEOC) and Route Cancelled | 2) Receives the request from Broker A | Order Cancel Request (or <i>requestTimestamp</i> in MEOC) |
| | 4) Receives confirmation from Broker B and updates OMS/EMS | Order Cancelled (<i>eventTimestamp</i> is the confirmation time) | 3) Confirms cancellation to Broker A | Order Cancelled (<i>eventTimestamp</i> is the confirmation time) |
| Modification/Cancellation of a Previously Routed Firm Order | | | | |

| Scenario | Sender (Broker A) | | Receiver (Broker B or Exchange) | |
|---|---|--|--|--|
| | Action | CAT Report | Action | CAT Report |
| Broker A requests to modify a firm order previously routed to Broker B | 1) 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 <i>requestTimestamp</i> in MEOM) |
| | 4) Receives the confirmation from Broker B and updates OMS/EMS | Order Modified event (<i>eventTimestamp</i> in MEOM is the confirmation time) | 3) Confirms modification to Broker A | Order Modified event (<i>eventTimestamp</i> is the confirmation time) |
| Broker A requests to modify an order previously routed to Broker B Broker A cancels the route and sends a new route to Broker B | 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 <i>requestTimestamp</i> in MEOC) |
| | 4) Receives the confirmation from Broker B and updates OMS/EMS | Order Modified (<i>eventTimestamp</i> in MEOM is the confirmation time) | 3) Confirms cancel/new order to Broker A | Order Cancelled (<i>eventTimestamp</i> 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 <i>requestTimestamp</i> in MEOC) |
| | 4) Receives the confirmation from Broker B and updates OMS/EMS | Order Cancelled (<i>eventTimestamp</i> is the confirmation time) | 3) Confirms cancellation to Broker A | Order Cancelled (<i>eventTimestamp</i> is the confirmation time) |
| Firm Initiated Cancellation/Modification of a Previously Routed Order Without a Corresponding Modification/Cancellation of the Originating Order | | | | |
| Broker A initiates a modification on a previously routed order | <ul style="list-style-type: none"> 1) Modifies route to Broker B | Route Modified | 2) Receives the request from Broker A | Order Modification Request (or <i>requestTimestamp</i> in MEOM) |
| | | | 3) Confirms modification to Broker A | Order Modified (<i>eventTimestamp</i> is confirmation time) |
| Broker A initiates a cancellation on a previously routed order | <ul style="list-style-type: none"> 1) Cancels route to Broker B | Route Cancelled | 2) Receives the request from Broker A | Order Cancel Request (or <i>requestTimestamp</i> in MEOC) |
| | | | 3) Confirms cancellation to Broker A | Order Cancelled (<i>eventTimestamp</i> is confirmation time) |
| Unsolicited Modification/Cancellation of a Previously Routed Order by the Receiving Firm Without a Corresponding Modification/Cancellation of the Originating Order | | | | |
| 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 (<i>eventTimestamp</i> is |

| Scenario | Sender (Broker A) | | Receiver (Broker B or Exchange) | |
|--|--|--|---|---|
| | 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 | 1) Cancels the order and sends unsolicited cancellation to Broker A | Order Cancelled (<i>eventTimestamp</i> is confirmation time) |

2.6.3. Summary of Route and TRF Linkage Keys

Table 7 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 Section 6.1.2.2 for additional guidance.

Table 7 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 [Plan Participant Technical Specifications](#).

Table 7: Summary of Route and TRF Linkage Keys

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

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

* 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 both the sending and receiving 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 Section 2.4.1.3. 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 | |
| <i>senderIMID</i> | 123:ABC | <i>senderIMID</i> | 123:ABC |
| <i>destination</i> | 456:DEFG | <i>receiverIMID</i> | 456:DEFG |
| Event Date (portion of <i>eventTimestamp</i>) | 05012018 | Event Date (portion of <i>eventTimestamp</i>) | 05012018 |
| <i>symbol</i> | XYZ | <i>symbol</i> | XYZ |
| <i>routedOrderID</i> | ROID1234 | <i>routedOrderID</i> | 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

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 [Plan Participant Technical Specifications](#) for more details.

The *senderIMID* in this scenario may be different from the *CATReporterIMID*. Refer to [Section 2.4.1.1](#) 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 | |
| <i>senderIMID</i> | 123:ABC | <i>routingParty</i> | ABC |
| <i>destination</i> | EXCH | <i>exchange</i> | EXCH |
| Event Date (portion of <i>eventTimestamp</i>) | 05012018 | Event Date (portion of <i>eventTimestamp</i>) | 05012018 |
| <i>symbol</i> | XYZ | <i>symbol</i> | XYZ |
| <i>routedOrderID</i> | ROID1234 | <i>routedOrderID</i> | ROID1234 |
| <i>session</i> | sess-01 | <i>session</i> | 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 [Order Routing Field Mapping](#) 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 [Section 2.4.1.1](#) 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 | |
| <i>routingParty</i> | ABC | <i>receiverIMID</i> | 123:ABC |
| <i>exchange</i> | EXCH | <i>senderIMID</i> | EXCH |
| Event Date (portion of <i>eventTimestamp</i>) | 05012018 | Event Date (portion of <i>eventTimestamp</i>) | 05012018 |
| <i>symbol</i> | XYZ | <i>symbol</i> | XYZ |
| <i>routedOrderID</i> | ROID1234 | <i>routedOrderID</i> | 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 [Section I](#) 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 [CAT Industry Member Reporting Scenarios](#) 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 | |
| <i>marketCenterID</i> | EXCH | <i>exchange</i> | EXCH |
| Event Date (portion of <i>eventTimestamp</i>) | 20210503 | Event Date (portion of <i>eventTimestamp</i>) | 20210503 |
| <i>optionID</i> | ABCD 210716C00062500 | <i>optionID</i> | ABCD 210716C00062500 |
| <i>tapeTradeID</i> | ABCD12345 | MOOTLINK in <i>executionCodes</i> | ABCD12345 |
| <i>side</i> | S | <i>side</i> | 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 | |
|--|-----------|--|-----------|
| CATReporterIMID ABCD | | Exchange EXCH | |
| <i>marketCenterID</i> | N | <i>exchange</i> | NYSE |
| Event Date (portion of <i>eventTimestamp</i>) | 20210503 | Event Date (portion of <i>eventTimestamp</i>) | 20210503 |
| <i>symbol</i> | XYZ | <i>symbol</i> | XYZ |
| <i>tapeTradeID</i> | ABCD12345 | <i>tradeID</i> | ABCD12345 |
| <i>side</i> | S | <i>side</i> | 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 [CAT FAQ G4](#) 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 separate and distinct 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 [CAT Industry Member Reporting Scenarios](#) 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 trade¹⁰ falling within the 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 [CAT FAQ B45](#) and [CAT FAQ C8](#).

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 both 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 | Responder | | Solicitor | |
|---|--------------------|----------------------------------|---|---|
| Response is immediately actionable, no further action is required before an order can be executed/routed | | | | |
| 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 actionable, further action is required before an order can be executed/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:

1. 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);
2. 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
3. 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 [CAT Industry Member Reporting Scenarios](#) 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 [CAT Industry Member Reporting Scenarios](#) 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 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 [CAT FAQ B71](#) 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.

| <i>orderType</i> | <i>price</i> | <i>optionID</i> | <i>handlingInstructions</i> |
|------------------|--------------|------------------------|-----------------------------|
| 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.

| <i>orderType</i> | <i>price</i> | <i>optionID</i> | <i>handlingInstructions</i> |
|------------------|--------------|------------------------|-----------------------------|
| 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.

| <i>orderType</i> | <i>price</i> | <i>optionID</i> | <i>handlingInstructions</i> |
|------------------|--------------|-----------------------|-----------------------------|
| 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 <i>routeRejectedFlag</i> . |
| 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 <i>askAggregatedOrders</i> or <i>bidAggregatedOrders</i> 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 <i>quoteRejectedFlag</i> 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.

Appendix C 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</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 | 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. | C |
| 13 | manualOrderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated. | C |
| 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'. | C |
| 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 |

New Order (MENO)

| Seq # | Field Name | Data Type | Description | Include Key |
|---|----------------------|-------------------|---|-------------|
| | | | This field is not used to indicate if a registered representative of the firm solicited a customer/client order. | |
| 17 | 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. 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. | C |
| 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'. | C |
| 20 | quantity | Real Quantity | The order quantity. | R |
| 21 | minQty | Whole Quantity | The minimum quantity of an order to be executed, required when applicable. | C |
| 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. | C |
| 26 | custDsplIntrFlag | 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. | C |
| 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. | C |
| Aggregated Orders – Start For each order being represented <i>n</i> , the following values are required. | | | | |

New Order (MENO)

| Seq # | Field Name | Data Type | Description | Include Key |
|--------------------------------|---------------------|-------------------|--|-------------|
| 31.n.1 | orderID | Text (64) | <i>orderID</i> of the order being represented. | R |
| 31.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being represented. | R |
| 31.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being represented. | C |
| 31.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> . | C |
| Aggregated 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. | A |
| 35 | atsDisplayInd | Choice | Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. | A |
| 36 | displayPrice | Price | The displayed price for this order. When provided, must be greater than or equal to zero. If <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> 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 <i>workingPrice</i> , value must be "0". | A |
| 38 | displayQty | Whole Quantity | The displayed quantity for this order. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> 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. | A |
| 40 | nbbPrice | Price | The NBBO at the moment the order was originated 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 populated with a value of '0'. | A |
| 41 | nbbQty | Whole Quantity | | A |
| 42 | nboPrice | Price | | A |
| 43 | nboQty | Whole Quantity | | A |
| 44 | nbboSource | Choice | Source of the NBBO data used. If <i>nbboSource</i> is | A |

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 <i>nbboSource</i> 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 <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. | C |
| 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. 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', 'P' or 'X'. | C |

Linkage Keys for this Reportable Event:

- 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 [CAT CAIS Industry Member Reporting Scenarios](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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. | C |
| Aggregated Orders – Start For each order being represented <i>n</i> , the following values are required. | | | | |
| 11.n.1 | orderID | Text (64) | <i>orderID</i> of the order being represented. | R |
| 11.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being represented. | R |
| 11.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being represented. | C |
| 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 <i>CATReporterIMID</i> . | C |
| 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 guidance for populating this field. | C |

Linkage Keys for this Reportable Event:

- 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 [CAT FAQ E27](#). Internal routes to another desk or department within an Industry Member are reported using an Order Internal Route Accepted event. Refer to the [Order Internal Route Accepted](#) 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the event which is being routed. | R |
| 7 | orderId | Text (64) | The <i>orderId</i> 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 <i>CATReporterIMID</i> . | C |
| 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)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|----------------------------------|--|-------------|
| | | | <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 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. | C |
| 14 | senderIMID | Industry Member ID | The IMID used to identify the Industry Member that is routing the order, known by the <i>destination</i> . When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the destination. When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> 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 <i>destinationType</i> is 'N'. | C |
| 15 | destination | Industry Member ID / 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 <i>destinationType</i> is 'O', 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 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 <i>destinationType</i> is 'N'. If optionally populated when <i>destinationType</i> is 'N', CRD Prefix is not required. | C |
| 16 | destinationType | Choice | Indicates whether the <i>destination</i> of the route is an Industry Member, an exchange or a foreign broker-dealer. <i>destinationType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security. | R |
| 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. Must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , <i>senderIMID</i> , and <i>session</i> | C |

Order Route (MEOR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|-------------------|---|-------------|
| | | | (applicable only on routes to exchanges). Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | |
| 18 | session | Text (40) | The session ID used when routing the order. 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. | C |
| 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'. | C |
| 21 | quantity | Real Quantity | The order quantity. | R |
| 22 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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 | isolnd | Choice | Indicates the order was routed as an Intermarket Sweep Order. | R |
| 28 | handlingInstructions | Name/Value Pairs | The order handling instructions for the order. | C |
| 29 | routeRejectedFlag | Boolean | Indicates the routed order was not accepted by the <i>destination</i> (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 <i>destinationType</i> 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. | O |
| 34 | infoBarrierID | Text (20) | Specifies the identifier of the information barrier in | C |

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 <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. | C |
| 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. | C |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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) | | | | |
|-----------------------|---------------------|--------------------|--|-------------|
| 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 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> . | C |
| 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. | C |
| 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. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event | C |

Route Modified (MEMR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|--------------------|----------------------------------|---|-------------|
| | | | <p>reported by the <i>destination</i>.</p> <p>When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> on the Order Accepted event if an Order Accepted event is reported by the <i>destination</i>.</p> <p>When <i>destinationType</i> is 'E', this value must equal the <i>routingParty</i> reported by the exchange on the Participant Order Accepted event.</p> <p>Not required when <i>destinationType</i> is 'N'.</p> | |
| 14 | destination | Industry Member ID / Exchange ID | <p>The <i>destination</i> of the route modification. Must equal the <i>destination</i> on the Order Route event being modified.</p> <p>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.</p> <p>When <i>destinationType</i> is 'O', 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 if an Order Accepted event is reported by the destination Industry Member.</p> <p>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.</p> <p>Not required if <i>destinationType</i> is 'N'.</p> | C |
| 15 | destinationType | Choice | <p>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.</p> <p><i>destinationType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security.</p> | R |
| 16 | routedOrderID | Text (64) | <p>The ID assigned to the order by the Industry Member when routing the modification to the <i>destination</i>.</p> <p>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).</p> <p>Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.</p> | C |
| 17 | priorRoutedOrderID | Text (64) | <p>The <i>routedOrderID</i> of the Order Route event being modified if the <i>routedOrderID</i> changed when the modification was routed to the destination.</p> <p>Must be populated when <i>routedOrderID</i> is populated and <i>dupROIDCond</i> is 'false'. Must be blank when <i>dupROIDCond</i> is 'true'</p> | C |
| 18 | session | Text (40) | <p>The session ID used when routing the modification. Must be equal to the <i>session</i> on the Order Route event being modified</p> | C |

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'. | C |
| 21 | quantity | Real Quantity | The order quantity. | R |
| 22 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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 | isolnd | Choice | Indicates the order was routed as an Intermarket Sweep Order. | R |
| 29 | handlingInstructions | Name/Value Pairs | The order handling instructions for the order. | C |
| 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 <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. | C |
| 34 | multiLegInd | Boolean | Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance. | R |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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. | O |
| 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 | symbol | Symbol | The <i>symbol</i> 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 | C |

Route 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. | C |
| 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 <i>destination</i> . Must equal the <i>senderIMID</i> in the Order Route event being cancelled. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the <i>destination</i> . When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> on the Order Accepted event if an Order Accepted event is reported by the <i>destination</i> . 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 <i>destinationType</i> is 'N'. | C |
| 16 | destination | Industry Member ID / Exchange ID | When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the <i>destination</i> in the Order Route event being cancelled, and must equal the <i>receiverIMID</i> field on the Order Accepted event reported by the destination Industry Member. When <i>destinationType</i> is 'O', 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 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 <i>destinationType</i> is 'N'. | C |
| 17 | destinationType | Choice | Indicates whether the <i>destination</i> 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. <i>destinationType</i> 'O' must only be populated if the <i>symbol</i> 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 <i>routedOrderID</i> reported by the destination in their Order Accepted report. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | C |
| 19 | session | Text (40) | The session ID used when routing the order. Must equal the <i>session</i> in the 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 Order Accepted event by the receiving exchange. | C |
| 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 multi-leg order event. Refer to Section 5.2 for additional guidance. | R |

Linkage Keys for this Reportable Event:

- 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) | | | | |
|--------------------------------|-----------------|----------------------|--|-------------|
| 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MEORS | 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. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related Order Route event this event is supplementing. | R |
| 7 | orderId | Text (64) | The <i>orderId</i> of the related Order Route 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 <i>CATReporterIMID</i> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of the related Order Route event this event supplements (including scenarios in which the supplement is created at a later time). | R |
| 11 | manualFlag | Boolean | The <i>manualFlag</i> of the related Order Route event this event supplements. Must be marked as 'true' if the order is routed manually. | R |
| 12 | senderIMID | Industry Member ID | The <i>senderIMID</i> of the Order Route event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the <i>destination</i> . When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> on the Order Accepted event if an Order Accepted event is reported by the <i>destination</i> . 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 <i>destinationType</i> is 'N'. | C |
| 13 | destination | Industry Member ID / | The <i>destination</i> of the Order Route event that this event supplements. | C |

Order Route Supplement (MEORS)

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

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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 <i>manualFlag</i> 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 <i>senderIMID</i> of the Route Modified event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the destination. When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> on the Order Accepted event if an Order | C |

Route Modified Supplement (MEMRS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|----------------------------------|---|-------------|
| | | | 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 <i>destinationType</i> is 'N'. | |
| 13 | destination | Industry Member ID / Exchange ID | The <i>destination</i> of the Route Modified event that this event supplements. 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 <i>destinationType</i> is 'O', 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 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 <i>destinationType</i> is 'N'. | C |
| 14 | destinationType | Choice | The <i>destinationType</i> 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. <i>destinationType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security. | R |
| 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. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | C |
| 16 | session | Text (40) | The <i>session</i> of the Route Modified event that this event supplements. 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-----------------|----------------------------------|--|-------------|
| 11 | manualFlag | Boolean | The <i>manualFlag</i> 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 <i>senderIMID</i> of the Route Cancelled event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the destination. When <i>destinationType</i> is 'O', this value must equal the <i>senderIMID</i> 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 <i>destinationType</i> is 'N'. | C |
| 13 | destination | Industry Member ID / Exchange ID | The <i>destination</i> of the Route Cancelled event that this event supplements. 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 <i>destinationType</i> is 'O', 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 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 <i>destinationType</i> is 'N'. | C |
| 14 | destinationType | Choice | The <i>destinationType</i> 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. <i>destinationType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security. | 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 Route Cancelled event that this event supplements. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | C |
| 16 | session | Text (40) | The <i>session</i> of the Route Cancelled event that this event supplements. 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. | C |

Route Cancelled Supplement (MECRS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|-----------|---|-------------|
| 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 |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</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 | 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. | C |
| 13 | receiverIMID | Industry Member ID | The IMID of the Industry Member receiving the order. When <i>senderType</i> is 'F', this value must equal the <i>destination</i> 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 <i>senderType</i> is 'E', this value must equal the <i>routingParty</i> on the Order Route event reported by the exchange. | R |
| 14 | senderIMID | Industry Member ID / 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 <i>senderIMID</i> in the Order Route event reported by the routing Industry Member. When <i>senderType</i> is 'O', 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 Order Route event if an Order Route event is 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 Order Route event reported by the exchange. | R |
| 15 | senderType | Choice | Indicates the type of origin from which the order is routed. <i>senderType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security. | R |
| 16 | routedOrderID | Text (64) | The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, <i>symbol</i> , <i>senderIMID</i> , and <i>receiverIMID</i> . Required when <i>manualFlag</i> is 'false'. | C |
| 17 | manualOrderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated. | C |
| 18 | manualOrderID | Text (64) | When this is a duplicative electronic message of a previously (separately) reported manual Order | C |

Order Accepted (MEOA)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|-------------------|--|-------------|
| | | | Accepted event, this field is to capture the internal order ID of the manual order. Required when <i>electronicDupFlag</i> is 'true'. | |
| 19 | affiliateFlag | Boolean | Indicates if the routing party is an affiliate of the Industry Member. | R |
| 20 | deptType | Choice | This is the category of internal department, unit or desk receiving the order. | R |
| 21 | side | Choice | The side of the order. | R |
| 22 | 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'. | C |
| 23 | quantity | Real Quantity | The order quantity. | R |
| 24 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 25 | orderType | Choice | The type of order as routed to the destination reporting the accepted event. | R |
| 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 | isolInd | Choice | Indicates the order was accepted as an Intermarket Sweep Order. | R |
| 29 | handlingInstructions | Name/Value Pairs | The order handling instructions for the order. | C |
| 30 | custDsplntrFlag | 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 |
| 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. | C |
| 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 | atsDisplayInd | Choice | Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data. | A |
| 34 | displayPrice | Price | The displayed price for the order. When provided, must be greater than or equal to zero. If <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> must be '0'. | 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 <i>workingPrice</i> , value must be '0'. | |
| 36 | displayQty | Whole Quantity | The displayed quantity of the order. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> 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. | A |
| 38 | nbbPrice | Price | The NBBO at the moment the order was 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 value of '0'. | A |
| 39 | nbbQty | Whole Quantity | | A |
| 40 | nboPrice | Price | | A |
| 41 | nboQty | Whole Quantity | | A |
| 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 <i>nbboSource</i> is 'NA'. | A |
| 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. | O |
| 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 CAT FAQ B71 for additional information. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When a new Order Key is not assigned, the <i>orderId</i> 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 | parentOrderKeyDate | Timestamp | If a new Order ID has been assigned, this is the | C |

Order Internal Route Accepted (MEIR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|-------------------|---|-------------|
| | | | <i>orderKeyDate</i> of the event from which the Order Internal Route Accepted event originated. Required when the <i>parentOrderID</i> is populated. Must be blank when <i>parentOrderID</i> is blank. | |
| 10 | 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. Required when the <i>parentOrderKeyDate</i> is populated. If a new Order ID has not been assigned, must be blank. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 12 | eventTimestamp | Timestamp | The date/time of receipt by the receiving desk. 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 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. | C |
| 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 <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. | C |
| 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'. | C |
| 20 | quantity | Real Quantity | The order quantity. | R |
| 21 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 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. | C |
| 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 <i>orderID</i> 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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 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 <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When a new Order Key is not assigned, the <i>orderID</i> 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 <i>orderKeyDate</i> of the event being modified. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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. | C |
| 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. | C |
| 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'. | C |
| 21 | quantity | Real Quantity | The order quantity. | R |
| 22 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 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. 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. | C |
| 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 | C |

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 CAT FAQ B71 for additional information. | |
| 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 <i>orderID</i> 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. | C |
| 31 | priorDeskOrderID | Text (64) | If a new <i>deskOrderID</i> has been assigned, this is the <i>deskOrderID</i> of the event being modified. When populated, the <i>priorDeskOrderID</i> must not be equal to the <i>deskOrderID</i> . | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |

Order Internal Route Cancelled (MEIC)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|-------------------|--|-------------|
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> 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 <i>CATReporterIMID</i> . | C |
| 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. | C |
| 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. Must not be populated if the request is captured in a separate MEICR event. 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. | C |
| 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. | C |
| 18 | deskOrderID | Text (64) | Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

Linkage Keys for this Reportable 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> . | C |
| 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. | C |
| 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 <i>deptType</i> . | 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. | C |
| 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'. | C |
| 18 | quantity | Real Quantity | The order quantity. | R |
| 19 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 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. | C |
| 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 <i>orderID</i> 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. | C |

Linkage Keys for this Reportable Event:

- 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 Internal 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 | 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> . | C |
| 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 | C |

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. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

Linkage Keys for this Reportable 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</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 | 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 <i>CATReporterIMID</i> . | C |
| 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'. | C |
| 15 | quantity | Real Quantity | The Child order quantity. | R |

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. | C |
| 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. | C |
| 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. If <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> must be "0". | A |
| 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. If no current <i>workingPrice</i> , value must be "0". | A |
| 25 | displayQty | Whole Quantity | The displayed quantity for this order. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> must be "0". | A |
| 26 | nbbPrice | Price | The NBBO at the moment the order was originated 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 populated with a value of '0'. | A |
| 27 | nbbQty | Whole Quantity | | A |
| 28 | nboPrice | Price | | A |
| 29 | nboQty | Whole Quantity | | A |
| 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'. | A |
| 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 | C |

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. | C |
| 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. | O |
| 36 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 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 ROE Identifier> 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> , <i>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 <i>orderKeyDate</i> of the event being modified. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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'. | C |
| 15 | quantity | Real Quantity | The Child order quantity. | R |
| 16 | minQty | Whole Quantity | The minimum quantity of an order to be executed. | C |
| 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. | C |
| 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 <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> must be "0". | A |
| 25 | workingPrice | Price | The working price of the order at the time it was originated. When provided, must be greater than or equal to zero. If no current <i>workingPrice</i> , value must be "0". | A |
| 26 | displayQty | Whole Quantity | The displayed quantity of the order. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> must be "0". | A |
| 27 | nbbPrice | Price | 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 quantity, fields must be populated with a value of '0'. | A |
| 28 | nbbQty | Whole Quantity | | A |
| 29 | nboPrice | Price | | A |
| 30 | nboQty | Whole Quantity | | A |
| 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'. | 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 <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 | C |

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 expanded in future phases of CAT. | O |
| 35 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> . | C |
| 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. | A |
| 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. | O |
| 17 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</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 |

Order Modified (Cancel/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 <i>orderKeyDate</i> of the event being modified. | C |
| 10 | 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 <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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 <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 modified or replaced manually. | R |
| 14 | manualOrderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated. | C |
| 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 <i>electronicDupFlag</i> is 'true'. | C |
| 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. | C |
| 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. When <i>senderType</i> is 'F', this value must equal the <i>destination</i> 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 <i>senderType</i> is 'E', this value must equal the <i>routingParty</i> on the Participant Order Modification | C |

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 | <p>Required when the modification is received from an Industry Member or an exchange.</p> <p>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 Order Route event reported by the routing Industry Member.</p> <p>When <i>senderType</i> is 'O', 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 Order Route event if an Order Route event is 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 Order Modification event reported by the exchange.</p> | C |
| 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. | C |
| 21 | routedOrderID | Text (64) | <p>The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, symbol, <i>senderIMID</i>, and <i>receiverIMID</i>.</p> <p>Required when <i>senderType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'.</p> | C |
| 22 | requestTimestamp | Timestamp | <p>The date/time the modification was requested. Required if a request was received, and the request is not captured in a separate MEOMR event.</p> <p>Must not be populated if the request is captured in a separate MEOMR event.</p> <p>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.</p> <p>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.</p> | 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 |

Order Modified (Cancel/Replace) (MEOM)

| 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'. | C |
| 29 | quantity | Real Quantity | The order quantity. | R |
| 30 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 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. | C |
| 39 | aggregatedOrders | Aggregated Orders | When applicable, the order ID of each customer/client order being represented. Refer to Appendix C for representative order linkage requirements. | C |
| Aggregated Orders – Start For each order being represented <i>n</i> , the following values are required. | | | | |
| 39.n.1 | orderID | Text (64) | <i>orderID</i> of the order being represented. | R |
| 39.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being represented. | R |
| 39.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being represented. | C |
| 39.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> . | C |
| Aggregated Orders – End | | | | |

Order Modified (Cancel/Replace) (MEOM)

| 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 <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> 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 <i>workingPrice</i> , value must be "0". | A |
| 45 | displayQty | Whole Quantity | The displayed quantity for this order at the time the order was modified. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> 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. | A |
| 47 | nbbPrice | Price | The NBBO at the moment the order was modified. 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'. | A |
| 48 | nbbQty | Whole Quantity | | A |
| 49 | nboPrice | Price | | A |
| 50 | nboQty | Whole Quantity | | A |
| 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 <i>nbboSource</i> 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. | C |
| 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 | C |

Order Modified (Cancel/Replace) (MEOM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|------------|-----------|---|-------------|
| | | | must be populated with the value of 'SS' or 'SX'. | |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related Order Modified (Cancel/Replace) event which this event is supplementing. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> 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 <i>CATReporterIMID</i> . | C |
| 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. Refer to Appendix C for representative order linkage requirements. | R |
| Aggregated Orders – Start | | | | |
| For each order being represented <i>n</i> , the following values are required. | | | | |
| 11.n.1 | orderID | Text (64) | <i>orderID</i> of the order being represented. | R |
| 11.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being represented. | R |
| 11.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being represented. | C |
| 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 <i>CATReporterIMID</i> . | C |
| Aggregated Orders – End | | | | |

Linkage Keys for this Reportable Event:

- 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 # | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MEOMR | 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. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order event for which the modification was requested. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> of the order event for which the 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> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the modification request. 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 modification 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. | C |
| 13 | receiverIMID | Industry Member ID | Required when the modification request is received from an Industry Member or an exchange (<i>senderType</i> is 'F', 'E', or 'O'). The IMID of the Industry Member receiving the modification request. | C |
| 14 | senderIMID | Industry Member ID / Exchange ID | Required when the modification request is received from an Industry Member or an exchange. When <i>senderType</i> is 'F' or 'O', this value is the IMID of the sending Industry Member from which the | C |

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. <i>senderType</i> 'O' must only be populated if the <i>symbol</i> is an OTC symbol in a foreign equity security. | C |
| 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'. | C |
| 20 | quantity | Real Quantity | The order quantity. | R |
| 21 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 27 | custDsplntrFlag | 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. | C |
| 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 <i>atsDisplayInd</i> is 'Y', 'S', or 'A', <i>displayPrice</i> must be the price at which the order was displayed. If <i>atsDisplayInd</i> is 'N', <i>displayPrice</i> 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 <i>workingPrice</i> , value must be "0". | A |
| 35 | displayQty | Whole Quantity | The displayed quantity for this order at the time of the modification request. If the <i>atsDisplayInd</i> is populated as 'Y', 'S', or 'A', <i>displayQty</i> must be the quantity at which the order was displayed. If the <i>atsDisplayInd</i> is 'N', <i>displayQty</i> must be "0". | A |
| 36 | atsOrderType | Array | Shows the ATS-specific order types as selected from a list of order types defined by this ATS. | A |
| 37 | nbbPrice | Price | The NBBO at the time of the modification request. 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'. | A |
| 38 | nbbQty | Whole Quantity | | A |
| 39 | nboPrice | Price | | A |
| 40 | nboQty | Whole Quantity | | A |
| 41 | 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 |
| 42 | 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 |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 | O |

Order Adjusted (MEOJ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|-------------------|--|-------------|
| | | | <i>CATReporterIMID</i> 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</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When a new Order Key is not assigned, the <i>orderID</i> of order 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 ID has been assigned, this is the <i>orderKeyDate</i> of the event being adjusted. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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 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. | C |
| 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. | C |
| 17 | quantity | Real Quantity | The order quantity. Required when <i>quantity</i> , <i>minQty</i> , <i>leavesQty</i> , or <i>displayQty</i> changed. | C |
| 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. | C |

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 <i>quantity</i> , <i>minQty</i> , <i>leavesQty</i> , or <i>displayQty</i> changed. Must be less than or equal to <i>quantity</i> . | C |
| 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. | A |
| 22 | displayPrice | Price | The displayed price of the order. When provided, must be greater than or equal to zero. Required when applicable and when <i>price</i> , <i>workingPrice</i> , or <i>displayPrice</i> changed. | C |
| 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> , <i>workingPrice</i> , or <i>displayPrice</i> changed. | C |
| 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. | C |
| 25 | nbbPrice | Price | The NBBO at the moment the order was modified. 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'. | A |
| 26 | nbbQty | Whole Quantity | | A |
| 27 | nboPrice | Price | | A |
| 28 | nboQty | Whole Quantity | | A |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 | O |

Order Cancelled (MEOC)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|-------------------|--|-------------|
| | | | <i>CATReporterIMID</i> in the filename. | |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> 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 <i>CATReporterIMID</i> . | C |
| 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 <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. | C |
| 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. 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. 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 |

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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 | 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 | C |

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 <i>CATReporterIMID</i> . | |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the cancel request. 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 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. | C |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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 [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/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 | <i>actionType</i> | Choice | Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error. | R |
| 2 | <i>errorROEID</i> | Unsigned | Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | <i>firmROEID</i> | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | <i>type</i> | 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. | O |
| 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 <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 | 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. If <i>manualFlag</i> is 'true', must be reported to seconds or a finer increment up to nanoseconds. If <i>manualFlag</i> is 'false', 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 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. | C |
| 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. 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. | C |
| 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. | C |
| 19 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. | C |

New Quote (MENQ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|----------------|---|-------------|
| | | | 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>bidPrice</i> field is blank. When <i>askRelativePrice</i> 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 <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 21 | firmDesignatedID | Text (40) | Refer to Appendix G: Data Dictionary for definition and guidance for populating this field. Required when <i>representativeQuoteInd</i> is null. Must be blank for an Industry Member generating quotes and displaying them on a Display-only Facility. (i.e., Not required when <i>representativeQuoteInd</i> is present.) Must be populated when the <i>RFQFlag</i> field is 'true'. | C |
| 22 | accountHolderType | Choice | Represents the type of account that originated this quote. Must be provided when <i>firmDesignatedID</i> 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 <i>representativeQuoteInd</i> is present.) | C |
| 23 | unsolicitedInd | Choice | Indicates whether this is an unsolicited quote. Must be blank when the <i>representativeQuoteInd</i> field is populated. | C |
| 24 | retiredFieldPosition | | Field position is retired and must remain blank. | |
| 25 | retiredFieldPosition | | Field position is retired and must remain blank. | |
| 26 | unpricedInd | Boolean | <i>unpricedInd</i> indicates when the quote is unpriced. Must be 'false' when <i>RFQFlag</i> 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 <i>unpricedInd</i> 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 <i>bidPrice</i> , <i>bidQty</i> , <i>askPrice</i> and <i>askQty</i> 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. | C |

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. | C |
| 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 Table 40: Aggregated Orders below. Required only when an Industry Member is generating quotes and displaying them on a Display-only Facility. Required when <i>representativeQuoteInd</i> is 'A' or 'C'. Must be blank when <i>representativeQuoteInd</i> is 'N' or 'S'. | C |
| 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 Table 40: Aggregated Orders below. Required only when an Industry Member is generating quotes and displaying them on a Display-only Facility. Required when <i>representativeQuoteInd</i> is 'B' or 'C'. Must be blank when <i>representativeQuoteInd</i> is 'N' or 'S'. | C |
| 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. 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 Solicitation for more information. | C |
| 33 | 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 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 | C |

New Quote (MENQ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|--------------------|------------------|--|-------------|
| | | | considered "orders" reportable pursuant to Rule 613(j)(8). See Section 3.4: Responses to RFQs and Solicitation for more information. | |
| 34 | bidRelativePrice | Name/Value Pairs | <p>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.</p> <p>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.</p> | C |
| 35 | askRelativePrice | Name/Value Pairs | <p>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 <i>askPrice</i> may not be available.</p> <p>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.</p> | C |
| 36 | validUntilDuration | Real Quantity | <p>RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.</p> <p>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.</p> | 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 Aggregated Order Details associated with fields: <i>askAggregatedOrders</i> and <i>bidAggregatedOrders</i> : | | | | |
|--|-----------------|-------------------|--|-------------|
| Seq # | Field Name | Data Type | Description | Include Key |
| <seq>.1.1 | orderID | Text (64) | <i>orderID</i> of the order being represented. | R |
| <seq>.1.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being represented. | R |
| <seq>.1.3 | quantity | Real Quantity | Required when a partial quantity of the order is being represented. | C |
| <seq>.1.4 | 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> . | C |

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 *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. The *askAggregatedOrders* and *bidAggregatedOrders* 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 | 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 Table 40: Aggregated Orders . Required when <i>representativeQuoteInd</i> is 'A' or 'C'. | C |
| 12 | bidAggregatedOrders | Aggregated Orders | The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the bid side. See Table 40: Aggregated Orders . Required when <i>representativeQuoteInd</i> is 'B' or 'C'. | C |

Linkage Keys for this Reportable Event:

- 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* / *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'. | C |

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 ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 | 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 <i>onlyOneQuoteFlag</i> method to route a modified quote, and both MERQ events have the same timestamp. | C |
| 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. Not required when <i>destinationType</i> is 'S' or 'N'. | C |
| 13 | routedQuoteID | Text (64) | 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'. When <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , and <i>senderIMID</i> . Must be populated for RFQ flow. | C |

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 <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. | C |
| 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. | C |
| 16 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. 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>bidPrice</i> field is blank. When <i>askRelativePrice</i> is populated, the field is not required to be populated. | C |
| 17 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 18 | quoteRejectedFlag | Boolean | If the result of the quote is rejected or no response was received, value should be 'true'. | R |
| 19 | unpricedInd | Boolean | <i>unpricedInd</i> 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 <i>unpricedInd</i> 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 <i>bidPrice</i> , <i>bidQty</i> , <i>askPrice</i> and <i>askQty</i> fields all populated with a value of zero. | R |
| 20 | dupROIDCond | Boolean | Indicates when a Routed Quote event maintains the original <i>routedQuoteID</i> . | 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. | C |
| 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 a non-CAT reporting | C |

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 <i>session</i> in the quote received event reported by the Display-only Facility. Required only when an Industry Member is generating quotes and displaying them on a Display-only Facility. Required when <i>destinationType</i> is 'D'. | C |
| 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. Not required for quotes routed to/accepted by OTC Link ATS or the ADF. <i>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.</i> | C |
| 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 <i>bidPrice</i> may not be available. <i>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.</i> | C |
| 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 <i>askPrice</i> may not be available. <i>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.</i> | C |

Routed Quote (MERQ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|--------------------|---------------|---|-------------|
| 28 | validUntilDuration | Real Quantity | <p>RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.</p> <p>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.</p> | O |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>destinationType</i> 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 <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. This value must be a valid Display-only Facility value and must equal the <i>receiverIMID</i> field on the quote received event reported by the Display-only Facility. | R |
| 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'. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |

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. Required when <i>manualFlag</i> is 'false'. Not required when <i>manualFlag</i> is 'true'. When <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , and <i>senderIMID</i> . Must be populated for RFQ flow. | C |
| 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'. | C |
| 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. 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. | C |

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. | C |
| 19 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. 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>bidPrice</i> field is blank. When <i>askRelativePrice</i> is populated, the field is not required to be populated. | C |
| 20 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 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 IDQs. When <i>quoteWantedInd</i> is populated, bid and ask fields are not required. | C |
| 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 <i>routedQuoteID</i> . | 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. | C |
| 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. 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 | C |

Quote Received (MEQR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|------------------|------------------|--|-------------|
| | | | and Solicitation for more information. | |
| 29 | RFQFlag | Boolean | <p>RFQ only field. Indicates if the CAT quote event reflects a response to an RFQ.</p> <p>Must be 'true' when <i>RFQID</i> field is populated.</p> <p>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.</p> | C |
| 30 | bidRelativePrice | Name/Value Pairs | <p>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.</p> <p>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.</p> | C |
| 31 | askRelativePrice | Name/Value Pairs | <p>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 <i>askPrice</i> may not be available.</p> <p>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.</p> | C |
| 32 | senderType | Choice | <p>RFQ only field. Indicates the type of origin from which the quote is routed.</p> <p>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</p> | C |

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. 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 |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |

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 ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 10 | eventTimestamp | Timestamp | The date/time the quote 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. | 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. | C |
| 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. | C |
| 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 | C |

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. | |

Linkage Keys for this Reportable Event:

- 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 *quoteID* 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 | <i>actionType</i> | Choice | Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error. | R |
| 2 | <i>errorROEID</i> | Unsigned | Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | <i>firmROEID</i> | 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 ROE Identifier> 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 | priorQuoteKeyDate | Timestamp | If a new Quote ID has been assigned, this is the <i>quoteKeyDate</i> of the event being modified. | C |
| 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. | C |
| 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. | C |
| 13 | bidPrice | Price | Price being bid. When provided, must be greater than or equal to zero. 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. | C |
| 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. | C |
| 15 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. 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 | C |

Quote Modified (MEQM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|------------------|---|-------------|
| | | | value greater than 0 if the <i>bidPrice</i> field is blank. When <i>askRelativePrice</i> 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 <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 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. | C |
| 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. | C |
| 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 <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. | C |
| 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 <i>askPrice</i> may not be available. This field is exclusively associated with RFQ responses | C |

Quote 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. | O |

Linkage Keys for this Reportable Event

- 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 [CAT FAQ J5](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 10 | eventTimestamp | Timestamp | The date/time the quote status was updated. 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) | The sequence number of the quote cancel message. Any alphanumeric not containing a delimiter. Required for inter-dealer quotation systems only. | C |
| 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 | C |

Quote Status (MEQS)

| 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:

- 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 [Table 49](#) 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 [CAT FAQ E25](#), 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 [CAT FAQ E29](#) and [CAT FAQ E30](#) 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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, <i>CATReporterIMID</i> , <i>symbol</i> , and <i>tradeID</i> 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 <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 | R |

Order Trade (MEOT)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|---------------|--|-------------|
| | | | execution. | |
| 11 | electronicTimestamp | Timestamp | The time at which the event is systematized. | O |
| 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. | C |
| 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, <i>CATReporterIMID</i> , <i>marketCenterID</i> and <i>symbol</i> . The <i>tapeTradeID</i> may link to either the reporting side or the contra-side of the media tape report. When the <i>reportingExceptionCode</i> field is blank, the <i>tapeTradeID</i> field must be populated. When the <i>reportingExceptionCode</i> field is populated, the <i>tapeTradeID</i> field must be blank. | C |
| 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'. | C |
| 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 <i>sideDetailsInd</i> is 'BUY', only the <i>buyDetails</i> | 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 Table 49: Trade Side Details 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. | C |
| 23 | sellDetails | Trade Side Details | See Table 49: Trade Side Details 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. | C |
| 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 <i>tapeTradeID</i> field is blank, the <i>reportingExceptionCode</i> field must be populated. When the <i>tapeTradeID</i> field is populated, the <i>reportingExceptionCode</i> field must be blank. When the <i>marketCenterID</i> field is blank, the <i>reportingExceptionCode</i> field must be populated. When the <i>marketCenterID</i> field is populated, the <i>reportingExceptionCode</i> must be blank. | C |
| 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. 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'. | A |
| 27 | nbbQty | Whole Quantity | | A |
| 28 | nboPrice | Price | | A |
| 29 | nboQty | Whole Quantity | | A |
| 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'. | 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 <i>reportingExceptionCode</i> is 'C'. | C |
| 34 | counterparty | Industry Member ID | The counterparty to the trade. Required when the <i>reportingExceptionCode</i> is 'C'. | C |

Order Trade (MEOT)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------|-----------|---|-------------|
| 35 | multiLegInd | Boolean | Indicates when the execution is related to a multi-leg 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. | C |

Table 49: 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 | orderKeyDate | Timestamp | Required if <i>orderID</i> is populated. The <i>orderKeyDate</i> of the order on this side. | C |
| <seq>.1.2 | orderID | Text (64) | The order ID of the order on this side. When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank. | C |
| <seq>.1.3 | side | Choice | The side of the trade. | R |
| <seq>.1.4 | retiredFieldPosition | | Field position is retired and must remain blank. | |
| <seq>.1.5 | firmDesignatedID | Text (40) | Applicable to internalized trades as described in Section 4.11 Trade . Refer to Appendix G: Data Dictionary 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. | C |
| <seq>.1.6 | accountHolderType | Choice | Required if <i>firmDesignatedID</i> is populated. Represents the type of account against which a customer/client order is being filled. | C |
| <seq>.1.7 | 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> . | C |

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 | 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 must be populated with the value of 'SS' or 'SX' and the <i>accountHolderType</i> field value must be 'O', 'P' or 'X'. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 | O |

Order Trade Supplement (MEOTS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------|--------------------|---|-------------|
| | | IMID | <i>CATReporterIMID</i> 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 Table 51: Trade Side Details below. | C |
| 11 | sellDetails | Trade Side Details | Required if the subject order was a sell order. See Table 51: Trade Side Details below. | C |
| 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: <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 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order on this side. Required if <i>orderID</i> is populated. | C |
| <seq>.1.2 | orderID | Text (64) | The order ID assigned by the Industry Member to the order on this side. When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank. | C |
| <seq>.1.3 | side | Choice | The side of the trade. | R |
| <seq>.1.4 | quantity | Real Quantity | The execution quantity associated with this <i>orderID</i> . | R |
| <seq>.1.5 | 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> . | C |
| <seq>.1.6 | firmDesignatedID | Text (40) | Applicable to internalized trades as described in Section 4.11 Trade . Refer to | C |

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 |
|-----------|-------------------|-----------|---|-------------|
| | | | <p><u>Appendix G: Data Dictionary</u> for definition and guidance for populating this field.</p> <p>When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank.</p> | |
| <seq>.1.7 | accountHolderType | Choice | <p>Required if <i>firmDesignatedID</i> is populated. Represents the type of account against which a customer/client order is being filled.</p> | C |
| <seq>.1.8 | BFMMFlag | Boolean | <p>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.</p> <p>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', 'P' or 'X'.</p> | C |

Linkage Keys for this Reportable Event:

- 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. [Appendix C](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | fillKeyDate | Timestamp | The date and time the <i>fulfillmentID</i> was assigned. | R |
| 7 | fulfillmentID | Text (64) | The unique identifier for the fulfillment. The combination of reporter, <i>fillKeyDate</i> , <i>symbol</i> and <i>fulfillmentID</i> 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. | C |
| 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 <i>cancelFlag</i> is 'true', the time at which the fulfillment 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. | C |
| 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 Table 53: Fulfillment Side Details 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. If more than one representative order was used to fill the customer/client order, this field must be blank and the <i>firmDetails</i> for each related representative order must be populated in separate MEOFS events. If <i>firmDetails</i> are captured in an MEOFS event, the <i>fulfillmentLinkType</i> field must be populated with a value of 'YS'. See Table 53: Fulfillment Side Details below. Refer to Appendix C for more details. | C |
| 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. | C |

Table 53: 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 | orderKeyDate | Timestamp | Required if <i>orderID</i> is populated. The <i>orderKeyDate</i> of the order on this side. | C |
| <seq>.1.2 | orderID | Text (64) | The order ID assigned by the Industry Member to the order on this side. When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank. | C |
| <seq>.1.3 | side | Choice | The side of the fulfillment. | R |
| <seq>.1.4 | retiredFieldPosition | | Field position is retired and must remain blank. | |
| <seq>.1.5 | firmDesignatedID | Text (40) | Applicable to <i>firmDetails</i> when <i>fulfillmentLinkType</i> 'YE' or 'YP' is populated, as described in Appendix C . Refer to Appendix G: Data Dictionary for definition and guidance for populating this field. When <i>firmDesignatedID</i> is populated, <i>orderID</i> must be blank. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank. | C |
| <seq>.1.6 | accountHolderType | Choice | Required if <i>firmDesignatedID</i> is populated. Represents the type of account against which a customer/client order is being filled. | C |
| <seq>.1.7 | 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> . | C |

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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 6 | fillKeyDate | Timestamp | The <i>fillKeyDate</i> of the Order Fulfillment event which this event is supplementing. | R |
| 7 | fulfillmentID | Text (64) | The <i>fulfillmentID</i> 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 <i>eventTimestamp</i> 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 Table 55: Fulfillment Side Details below. Refer to Appendix C 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 | Include Key |
| <seq>.1.1 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order on this side. | R |
| <seq>.1.2 | orderID | Text (64) | The order ID assigned by the Industry Member to the order on this side. | R |
| <seq>.1.3 | side | Choice | The side of the trade. | R |
| <seq>.1.4 | quantity | Real Quantity | The execution quantity associated with this <i>orderID</i> . | 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 | 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> . | C |

Linkage Keys for this Reportable Event:

- 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 # | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. | R |
| 4 | type | Message Type | MEFA | 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. | O |
| 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 fulfillment event by the Industry Member. Must be unique within <i>fillKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When a new Fulfillment Key is not assigned, the <i>fulfillmentID</i> of the fulfillment event being modified. | R |
| 8 | priorFillKeyDate | Timestamp | In cases when a new <i>fulfillmentID</i> is assigned, the <i>priorFillKeyDate</i> is the <i>fillKeyDate</i> of the fulfillment that is being modified. Required if <i>priorFulfillmentID</i> is populated. | C |
| 9 | priorFulfillmentID | Text (64) | If a new fulfillment ID is assigned, this is the <i>fulfillmentID</i> of the event being modified. | C |
| 10 | symbol | Symbol | The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity Securities. | 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> . | C |
| 12 | 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 |
| 13 | manualFlag | Boolean | Must be marked as 'true' if this is a manual process. | R |
| 14 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |
| 15 | quantity | Real Quantity | Quantity being executed and assigned. It may or may not be the full quantity of the order. | R |

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 Table 53: Fulfillment Side Details . Required if changed. | C |
| 20 | firmDetails | Fulfillment Side Details | Refer to Fulfillment Side Details in Table 53: Fulfillment Side Details . Required if changed. | C |

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*
- 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 [Section 3.3](#) 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' | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 6 | allocationKeyDate | Timestamp | The date and time the <i>allocationID</i> was assigned. | R |
| 7 | allocationID | Text (64) | The internal allocation ID assigned to the allocation event by the Industry Member. The combination of <i>CATReporterIMID</i> , <i>allocationKeyDate</i> , <i>symbol</i> and <i>allocationID</i> 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. | C |
| 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. | C |
| 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'. | C |

Post-Trade Allocation (MEPA)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------------|-----------|--|-------------|
| | | | Refer to CAT FAQ U19 for additional guidance. | |
| 22 | correspondentCRD | Unsigned | The CRD number of the related Introducing Broker or Correspondent firm, if applicable. | C |
| 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. | C |
| 24 | allocationInstructionTime | Timestamp | The date/time the time the allocation instruction was received. | O |
| 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 |

Linkage Keys for this Reportable Event:

- 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 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.

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' | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MEAA | R |
| 5 | CATReporterIMID | CAT Reporter IMID | The SRO-assigned identifier that an Industry Member uses to report to CAT. | O |
| 6 | allocationKeyDate | Timestamp | When a new Allocation Key is assigned, the date and time the <i>allocationID</i> was assigned. When a new Allocation Key is not assigned, the <i>allocationKeyDate</i> of the allocation event being modified. | R |
| 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 <i>allocationKeyDate</i> , <i>CATReporterIMID</i> , and symbol combination. When a new Allocation Key is not assigned, the <i>allocationID</i> of the allocation event being modified. | R |
| 8 | 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. Required if <i>priorAllocationID</i> is populated. | C |
| 9 | priorAllocationID | Text (64) | If a new allocation ID is assigned, this is the <i>allocationID</i> of the event being modified. | C |
| 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. | C |
| 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 CAT FAQ U19 for additional guidance. | C |
| 22 | correspondentCRD | Unsigned | The CRD number of the related Introducing Broker or Correspondent firm, if applicable. | C |
| 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. | C |
| 24 | allocationInstructionTime | Timestamp | The date/time the time the allocation amendment instruction was received. | O |
| 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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 [FAQ D26](#)), 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> | R |

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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</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 | 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 <i>orderKeyDate</i> of the event being modified. | C |
| 10 | 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 <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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. | C |
| 17 | price | Price | The limit price of the order. When provided, must be greater than or equal to zero. Required if the field | C |

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. | C |
| 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. | C |
| 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. | 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 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. | C |
| 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. | C |
| 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. | C |
| 26 | nbbPrice | Price | The NBBO at the moment the order was originated 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 populated with a value of '0'. | A |
| 27 | nbbQty | Whole Quantity | | A |
| 28 | nboPrice | Price | | A |
| 29 | nboQty | Whole Quantity | | A |
| 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'. | A |
| 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) | C |

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 <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. | C |

Linkage Keys for this Reportable Event:

- 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 | MOCO | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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, <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 | 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. | C |
| 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. | C |
| 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. | C |
| 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'. | C |
| 18 | quantity | Real Quantity | The quantity of contracts. | R |
| 19 | minQty | Whole Quantity | The minimum quantity of contracts to be executed. | C |
| 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. | C |
| 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. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 27.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 27.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> 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. | C |
| 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> . | C |
| Aggregated 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 representative of the firm solicited a customer/client order. | R |
| 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. | C |
| 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. | C |
| 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 additional information. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 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 <i>orderID</i> of the related New Option Order event which this event is Supplementing. Must be unique within <i>orderKeyDate</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 |

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> . | C |
| 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. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 11.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 11.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 11.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 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 <i>CATReporterIMID</i> . | C |
| Aggregated 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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |

Option Order Route (MOOR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|----------------------------------|---|-------------|
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the event which is being routed. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> 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 <i>CATReporterIMID</i> . | C |
| 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'. | C |
| 14 | senderIMID | Industry Member ID | The IMID used to identify the Industry Member that is routing the order, known by the destination. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event 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 Option Order Accepted event. | C |
| 15 | destination | Industry Member ID / 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 must equal the <i>receiverIMID</i> 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 must equal the <i>exchange</i> field on the Option Order Accepted event reported by the destination exchange. | C |
| 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 <i>routedOrderID</i> reported by the destination in their Option Order Accepted event. Must be unique per combination of Event Date, <i>optionID</i> , <i>destination</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges). | C |

Option Order Route (MOOR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|------------------|--|-------------|
| | | | Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | |
| 18 | session | Text (40) | The session ID used when routing the order. 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. | C |
| 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. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |
| 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 <i>destinationType</i> is 'E'. | C |
| 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. | C |
| 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. | C |
| 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 | C |

Option Order Route (MOOR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|------------|-----------|--|-------------|
| | | | <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. | |

Linkage Keys for this Reportable Event:

- 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 | <i>actionType</i> | Choice | Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error. | R |
| 2 | <i>errorROEID</i> | Unsigned | Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | <i>firmROEID</i> | 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 ROE Identifier> 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 | 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> . | C |
| 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. | C |
| 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. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event 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 Option Order Accepted event. | C |
| 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. 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 | C |

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 <i>destinationType</i> 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 <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>optionID</i> , <i>destination</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges). Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 17 | priorRoutedOrderID | Text (64) | The <i>routedOrderID</i> of the Option Order Route event being modified if the <i>routedOrderID</i> changed when the modification was routed to the destination. Must be populated when <i>routedOrderID</i> is populated and <i>dupROIDCond</i> is 'false'. Must be blank when <i>dupROIDCond</i> is 'true' | C |
| 18 | session | Text (40) | The session ID used when routing the modification. Must be equal to the <i>session</i> on the Option Order Route event being modified 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. | C |
| 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'. | C |
| 21 | quantity | Real Quantity | The order quantity. | R |
| 22 | minQty | Whole Quantity | The minimum quantity of an order to be executed. Required when applicable. | C |
| 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. | C |
| 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'. | C |
| 32 | openCloseIndicator | Choice | Indicates when exchange rules require an order to be marked as open or close upon entry into the exchange. | C |
| 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 additional information. | C |
| 34 | multiLegInd | Boolean | Indicates the route modification is related to a multi-leg order event. Refer to Section 5.2 for additional guidance. | R |

Linkage Keys for this Reportable Event:

- 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 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> . | C |
| 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. | C |
| 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 | C |

Option Route Cancelled (MOCR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|----------------------------------|---|-------------|
| | | | being cancelled. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event 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 Option Order Accepted event. | |
| 16 | destination | Industry Member ID / Exchange ID | When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the <i>destination</i> in the Option Order Route event being cancelled. Must equal the <i>receiverIMID</i> 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. | C |
| 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 <i>routedOrderID</i> reported by the destination in their Option Order Accepted report. Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 being 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 <i>CATReporterIMID</i> . | C |
| 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 | <i>The senderIMID</i> of the Option Order Route event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event reported by the destination. | C |

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. When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is receiving this routed order, and must equal the <i>receiverIMID</i> 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 must equal the <i>exchange</i> field on the Option Order Accepted event reported by the destination exchange. | C |
| 13 | destinationType | Choice | The <i>destinationType</i> 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. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | C |
| 15 | session | Text (40) | The <i>session</i> of the Option Order Route event that this event supplements. 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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 <i>manualFlag</i> 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 <i>senderIMID</i> of the Option Route Modified event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event reported by the destination. | C |

Option Route Modified Supplement (MOMRS)

| 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. | |
| 13 | destination | Industry Member ID / Exchange ID | The <i>destination</i> of the Option Route Modified event that this event supplements. 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 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. | C |
| 14 | destinationType | Choice | The <i>destinationType</i> 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. Required when <i>destinationType</i> is 'F', 'E', or 'O', and <i>manualFlag</i> is 'false'. | C |
| 16 | session | Text (40) | The <i>session</i> of the Option Route Modified event that this event supplements. 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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 Route 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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 <i>manualFlag</i> 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 <i>senderIMID</i> of the Option Route Cancelled event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Option Order Accepted event 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 Option Order Accepted event. | C |
| 13 | destination | Industry Member ID / Exchange ID | The <i>destination</i> of the Option Route Cancelled event that this event supplements. 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 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. | C |
| 14 | destinationType | Choice | The <i>destinationType</i> 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'. | C |
| 16 | session | Text (40) | The <i>session</i> of the Option Route Cancelled event that this event supplements. 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. | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOOA | 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. | O |
| 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. | C |
| 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. | C |
| 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. | C |
| 15 | receiverIMID | Industry Member ID | The IMID of the Industry Member receiving the order. When <i>senderType</i> is 'F', this value must equal the <i>destination</i> field on the Option Order Route event reported by the routing Industry Member. When <i>senderType</i> is 'E', this value must equal the <i>routingParty</i> on the Option Order Route event reported by the exchange. | R |
| 16 | senderIMID | Industry Member ID / 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 Industry Member from which the order is routed, and must equal the <i>exchange</i> 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> . Required when <i>manualFlag</i> is 'false'. | C |
| 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'. | C |
| 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. | C |
| 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. | C |

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. This field is not used to indicate if a registered representative of the firm solicited a customer/client order. | R |
| 30 | pairedOrderID | Text (64) | The pairedOrderID field may be populated if two or more offsetting orders are received with instructions to cross. | O |
| 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. | C |
| 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 <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. | C |

Linkage Keys for this Reportable Event:

- 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 Order 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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</i> , <i>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 | 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 | If a new Order ID has been assigned, this is the <i>orderKeyDate</i> of the event from which the Order Internal Route Accepted event originated. Required when the <i>parentOrderID</i> is populated. Must be blank when <i>parentOrderID</i> is blank. | C |
| 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</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. Required when the <i>parentOrderKeyDate</i> is populated. If | C |

Option Order 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 <i>CATReporterIMID</i> . | C |
| 12 | eventTimestamp | Timestamp | The date/time of receipt by the receiving desk. 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. | C |
| 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'. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 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 Section 5.2 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. | C |
| 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 <i>orderID</i> 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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter | R |

Option Order Internal Route Modified (MOIM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|-------------------|--|-------------|
| | | | IMID. | |
| 4 | type | Message Type | MOIM | 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. | O |
| 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. Must be unique within <i>orderKeyDate</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 | priorOrderKeyDate | Timestamp | If a new Order ID has been assigned, this is the <i>orderKeyDate</i> of the event being modified. | C |
| 10 | priorOrderID | Text (64) | If a new Order ID has been assigned, this is the <i>orderID</i> 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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. | C |
| 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 | initiator | Choice | Indicates who initiated the internal route modification. | R |
| 18 | side | Choice | The side of the order. | R |
| 19 | price | Price | The limit price of the order. When provided, must be | C |

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. | C |
| 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. | C |
| 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. | C |
| 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. Must not be populated if the request is captured in a separate MOIMR event. 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. | C |
| 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. | C |
| 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 <i>orderID</i> 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. | C |
| 31 | priorDeskOrderID | Text (64) | If a new <i>deskOrderID</i> has been assigned, this is the <i>deskOrderID</i> of the event being modified. | C |

Option Order Internal Route Modified (MOIM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|------------|-----------|---|-------------|
| | | | When populated, the <i>priorDeskOrderID</i> must not be equal to the <i>deskOrderID</i> . | |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> 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 | C |

Option Order Internal Route Cancelled (MOIC)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|---------------|--|-------------|
| | | | <i>CATReporterIMID.</i> | |
| 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. | C |
| 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. Must not be populated if the request is captured in a separate MOICR event. 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. | C |
| 17 | deskOrderID | Text (64) | Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

Linkage Keys for this Reportable 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 # | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOIMR | 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. | O |
| 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 | 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> . | C |
| 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. | C |
| 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 <i>deptType</i> . | R |
| 15 | side | Choice | The side of the order. | R |
| 16 | price | Price | The limit price of the order. When provided, must be greater than or equal to zero. | C |

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. | C |
| 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. | C |
| 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. | C |
| 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 <i>orderID</i> 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. | C |

Linkage Keys for this Reportable Event:

- 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 Internal 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 | 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> . | C |
| 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. | C |
| 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 <i>orderID</i> 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. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</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 | parentOrderKeyDate | Timestamp | <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 <i>CATReporterIMID</i> . | C |
| 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 <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 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. | O |
| 27 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOCOM | 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. | O |
| 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 <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> 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 <i>orderKeyDate</i> of the Child Order being modified. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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'. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 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. | O |
| 27 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> . | C |
| 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. | O |
| 17 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>orderKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> 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 <i>orderKeyDate</i> of the event being modified. | C |
| 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 | C |

Option Order Modified (Cancel/Replace) (MOOM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|----------------------------------|--|-------------|
| | | | the <i>orderID</i> 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> . | C |
| 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. | C |
| 14 | manualOrderID | Text (64) | When this is a duplicative electronic message of a previously (separately) reported manual Option Order Modified (Cancel/Replace) event (<i>electronicDupFlag</i> is 'true'), this field is to capture the internal order ID of the manual order. | C |
| 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. | C |
| 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. When <i>senderType</i> is 'F', this value must equal the <i>destination</i> field on the Option Order Route event reported by the routing Industry Member. When <i>senderType</i> is 'E', this value must equal the <i>routingParty</i> on the Participant Option Order Modified event reported by the exchange. | C |
| 19 | senderIMID | Industry Member ID / Exchange ID | Required when the modification is received from an Industry Member or an exchange. 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. | C |

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. | C |
| 21 | 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> . Required when <i>senderType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 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'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 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. Must not be populated if the request is captured in a separate MOOMR event. 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. 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 |

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. Refer to Appendix C for combined order linkage requirements. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 35.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 35.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 35.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 35.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> . | C |
| Aggregated 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. | C |

Linkage Keys for this Reportable Event:

- 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 Order 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related Option Order Modified (Cancel/Replace) event which this event is supplementing. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> 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 <i>CATReporterIMID</i> . | C |
| 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 |
| Aggregated Orders – Start For each order being represented <i>n</i> , the following values are required. | | | | |

Option Order Modified Supplement (MOOMS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------------------------|-----------------|-------------------|--|-------------|
| 11.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 11.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 11.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 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 <i>CATReporterIMID</i> . | C |
| Aggregated Orders – End | | | | |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOOMR | R |
| 5 | CATReporterIMID | CAT Reporter | The SRO-assigned identifier that an Industry Member | O |

Option Order Modification Request (MOOMR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|----------------------------------|--|-------------|
| | | IMID | uses to report to CAT. If populated, must equal the <i>CATReporterIMID</i> 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> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the modification request. 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 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. | C |
| 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. | C |
| 14 | senderIMID | Industry Member ID / Exchange ID | Required when the modification request is received from an Industry Member or an exchange. When <i>senderType</i> is 'F', this value is the IMID of the sending Industry Member from which the order is routed. When <i>senderType</i> is 'E', this value is the Exchange ID of the sending entity from which the order is routed. | C |
| 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. | C |
| 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'. | C |
| 18 | quantity | Real Quantity | The order quantity. | R |
| 19 | minQty | Whole | The minimum quantity of an order to be executed. | C |

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. | C |
| 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. | C |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new Order Key is not assigned, the <i>orderID</i> 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 <i>orderKeyDate</i> of the event being adjusted. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different | C |

Option Order Adjusted (MOOJ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|------------------|---|-------------|
| | | | <i>CATReporterIMID.</i> | |
| 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. | C |
| 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. | C |
| 17 | quantity | Real Quantity | The order quantity. Required if <i>quantity</i> , <i>minQty</i> or <i>leavesQty</i> changed. | C |
| 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. | C |
| 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> . | C |
| 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 CAT FAQ B71 for additional information. Required if changed. | C |

Linkage Keys for this Reportable Event:

- 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 not 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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'. | C |
| 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. Must not be populated if the request is captured in a separate MOOCR event. 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. 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 |

Linkage Keys for this Reportable Event:

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the cancel request. 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 cancellation was requested manually. | R |
| 12 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required | C |

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 |

Linkage Keys for this Reportable Event:

- 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 | 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 <i>bidRelativePrice</i> is populated, the field is not required to be populated. | C |
| 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. | C |
| 13 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. When <i>askRelativePrice</i> is populated, the field is not required to be populated. | C |
| 14 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |

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. | C |
| 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 <i>askPrice</i> may not be available. | C |
| 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. | O |

Linkage Keys for this Reportable Event:

- 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 [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.

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 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 | 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 <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. Not required when <i>destinationType</i> is 'S' or 'N'. | C |

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 <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , and <i>senderIMID</i> . | 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 <i>bidRelativePrice</i> is populated, the field is not required to be populated. | C |
| 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. | C |
| 16 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. When <i>askRelativePrice</i> is populated, the field is not required to be populated. | C |
| 17 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 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. | C |
| 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 <i>askPrice</i> may not be available. | C |
| 23 | validUntilDuration | Real Quantity | The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. | O |

Linkage Keys for this Reportable Event:

- 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 <i>actionType</i> is ‘RPR’. Must be blank when <i>actionType</i> is ‘NEW’. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>routedQuoteID</i> . | 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 <i>senderIMID</i> in the New Quote event reported by the routing Industry Member. Not required when <i>senderType</i> is 'N' or 'S'. | C |
| 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 <i>bidRelativePrice</i> is populated, the field is not required to be populated. | C |
| 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' or the <i>bidRelativePrice</i> is populated. | C |
| 17 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. When <i>askRelativePrice</i> is populated, the field is not required to be populated. | C |
| 18 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the | C |

Option Quote Received (MOQR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|--------------------|------------------|---|-------------|
| | | | <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> 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. Must be 'true' when <i>RFQID</i> field is populated. | 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. | C |
| 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 <i>askPrice</i> , may not be available. | C |
| 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. | O |

Linkage Keys for this Reportable Event:

- 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> . | C |
| 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 |

Linkage Keys for this Reportable Event:

- 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 *quoteID* 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new quote ID is not assigned, the <i>quoteID</i> 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 <i>quoteKeyDate</i> of the event being modified. | C |
| 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. | C |

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. | C |
| 12 | senderIMID | Industry Member ID | Required when the modification is received from an Industry Member. | C |
| 13 | routedQuoteID | Text (64) | The ID for the quote as sent by the routing entity. Must be unique per combination of Event Date, <i>optionID</i> , <i>senderIMID</i> , and <i>receiverIMID</i> . | 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 <i>bidRelativePrice</i> is populated, must be blank. | C |
| 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' or the <i>bidRelativePrice</i> is populated. | C |
| 17 | askPrice | Price | Price being asked. When provided, must be greater than or equal to zero. When <i>askRelativePrice</i> is populated, must be blank. | C |
| 18 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0' or the <i>askRelativePrice</i> is populated. | C |
| 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. | C |
| 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 <i>askPrice</i> may not be available. | C |
| 22 | validUntilDuration | Real Quantity | The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. | O |

Linkage Keys for this Reportable Event

- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOOT | 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. | O |
| 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, <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. | O |
| 12 | cancelFlag | Boolean | Must be marked as 'true' if the execution is cancelled. | R |
| 13 | cancelTimestamp | Timestamp | When <i>cancelFlag</i> is 'true', the time at which the | C |

Option Trade (MOOT)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------|--------------------|--|-------------|
| | | | 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. | |
| 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 <i>firmDesignatedID</i> 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 <i>sideDetailsInd</i> is 'BUY', only the <i>buyDetails</i> are populated. When <i>sideDetailsInd</i> is 'SELL', only the <i>sellDetails</i> are populated. | R |
| 19 | buyDetails | Trade Side Details | See Table 91: Trade Side Details below. Must be populated if <i>sideDetailsInd</i> is 'BUY'. Must be blank if <i>sideDetailsInd</i> is 'SELL'. | C |
| 20 | sellDetails | Trade Side Details | See Table 91: Trade Side Details below. Must be populated if <i>sideDetailsInd</i> is 'SELL'. Must be blank if <i>sideDetailsInd</i> is 'BUY'. | C |
| 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: *buyDetails* and *sellDetails*.
Limited to 1 set of details for each side.

| Seq # | Field Name | Data Type | Description | Include Key |
|-----------|--------------|-----------|---|-------------|
| <seq>.1.1 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order on this side. When <i>orderID</i> is populated, <i>firmDesignatedID</i> must be blank. When <i>orderID</i> is blank, <i>firmDesignatedID</i> must be populated. | C |

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 | orderID | Text (64) | The order ID of the order on this side. | C |
| <seq>.1.3 | side | Choice | The side of the trade. | R |
| <seq>.1.4 | reservedForFutureUse | | Field is Reserved for Future Use and must remain blank. | |
| <seq>.1.5 | 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> . | C |
| <seq>.1.6 | 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 <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. | C |
| <seq>.1.7 | accountHolderType | Choice | Required if <i>firmDesignatedID</i> is populated. Represents the type of account associated with the <i>firmDesignatedID</i> . | C |

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

| Option 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | fillKeyDate | Timestamp | The date and time the <i>fulfillmentID</i> was assigned. | R |
| 7 | fulfillmentID | Text (64) | A unique identifier for the fulfillment. For each Industry Member, the combination of <i>fillKeyDate</i> , <i>optionID</i> , and <i>fulfillmentID</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 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. | C |
| 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 . | C |
| 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 <i>cancelFlag</i> is 'true', the time at which the fulfillment 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. | C |

Table 93: Options Fulfillment Side Details

Fulfillment Side Details

| Seq # | Field Name | Data Type | Description | Include Key |
|--|----------------------|-------------------|--|-------------|
| The Fulfillment Side Details associated with fields: <i>clientDetails</i> and <i>firmDetails</i> : Limited to 1 set of details for each side. | | | | |
| <seq>.1.1 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order on this side. | R |
| <seq>.1.2 | orderID | Text (64) | The order ID assigned by the Industry Member to the order on this side. | R |
| <seq>.1.3 | side | Choice | The side of the fulfillment. | R |
| <seq>.1.4 | retiredFieldPosition | | Field position is retired and must remain blank. | |
| <seq>.1.5 | 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> . | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | fillKeyDate | Timestamp | The date and time the <i>fulfillmentID</i> was assigned. | R |
| 7 | fulfillmentID | Text (64) | A unique identifier for the fulfillment. For each Industry Member, the combination of <i>fillKeyDate</i> , <i>optionID</i> , and <i>fulfillmentID</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 when the fulfillment was processed by the Industry Member. This must match the <i>eventTimestamp</i> 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 Table 95: Options Fulfillment Side Details . Refer to Appendix C 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 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order on this side. | R |
| <seq>.1.2 | orderId | Text (64) | The order ID assigned by the Industry Member to the order on this side. | R |

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>.1.3 | side | Choice | The side of the fulfillment. | R |
| <seq>.1.4 | quantity | Real Quantity | The execution quantity associated with this <i>orderID</i> . | R |
| <seq>.1.5 | 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> . | C |

Linkage Keys for this Reportable Event:

- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>fillKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new Fulfillment Key is not assigned, the <i>fulfillmentID</i> 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 <i>fulfillmentID</i> is assigned, the <i>priorFillKeyDate</i> is the <i>fillKeyDate</i> of the fulfillment that is being modified. Required if <i>priorFulfillmentID</i> is populated. | C |
| 10 | priorFulfillmentID | Text (64) | If a new fulfillment ID is assigned, this is the <i>fulfillmentID</i> 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 12 | eventTimestamp | Timestamp | The date/time that the fulfillment was amended. 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 |
| 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. | C |
| 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 Table 93: Options Fulfillment Side Details . Required if changed. | C |
| 19 | firmDetails | Fulfillment Side Details | Refer to Table 93: Options Fulfillment Side Details . Required if changed. | C |
| 20 | retiredFieldPosition | | Field position is retired and must remain blank. | |

Linkage Keys for this Reportable Event:

- 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 [Section 3.3](#) 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' | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> | 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. | O |
| 6 | allocationKeyDate | Timestamp | The date and time the <i>allocationID</i> was assigned. | R |
| 7 | allocationID | Text (64) | The internal allocation ID assigned to the allocation event by the Industry Member. The combination of <i>CATReporterIMID</i> , <i>allocationKeyDate</i> , <i>symbol</i> and <i>allocationID</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 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 <i>cancelFlag</i> is 'true', the time at which the allocation was cancelled. | C |
| 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. | C |
| 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. | C |

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. | C |
| 24 | allocationInstructionTime | Timestamp | The date/time the time the allocation instruction was received. | O |
| 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 <i>allocationType</i> is 'CMTA'. | C |
| 27 | accountHolderType | Choice | Represents the type of beneficial owner of the account to which the contracts were allocated. | R |

Linkage Keys for this Reportable Event:

- 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' | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MOAA | R |
| 5 | CATReporterIMID | CAT Reporter IMID | The SRO-assigned identifier that an Industry Member uses to report to CAT. | O |
| 6 | allocationKeyDate | Timestamp | When a new Allocation Key is assigned, the date and time the <i>allocationID</i> was assigned. When a new Allocation Key is not assigned, the <i>allocationKeyDate</i> of the allocation event being modified. | R |
| 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 <i>allocationKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> combination. When a new Allocation Key is not assigned, the <i>allocationID</i> of the allocation event being modified. | R |
| 8 | 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. Required if <i>priorAllocationID</i> is populated. | C |
| 9 | priorAllocationID | Text (64) | If a new allocation ID is assigned, this is the <i>allocationID</i> of the event being modified. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| 24 | allocationInstructionTime | Timestamp | The date/time the time the allocation amendment instruction was received. | O |
| 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. | C |
| 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 <i>allocationType</i> is 'CMTA'. | C |
| 29 | accountHolderType | Choice | Represents the type of beneficial owner of the account to which the contracts were allocated. | R |

Linkage Keys for this Reportable Event:

- 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 [FAQ D26](#)), 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 |

Option 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 <i>orderKeyDate</i> of the event being modified. | C |
| 10 | 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 <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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. | C |
| 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. | C |
| 18 | quantity | Real Quantity | The order quantity. Required if the field changed when the order or underlying condition became effective. | C |
| 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. | C |
| 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. | C |
| 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) | C |
| 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. | C |

Linkage Keys for this Reportable Event:

- 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 not 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 [CAT FAQ E1](#) 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 <i>actionType</i> is ‘RPR’. Must be blank when <i>actionType</i> is ‘NEW’. | C |

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 ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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. | O |
| 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, <i>CATReporterIMID</i> , and <i>optionID</i> combination. | R |
| 8 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance. | O |
| 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 was received manually. | R |
| 11 | manualOrderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated. | C |
| 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. | C |
| 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. | C |
| 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. 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' | C |

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. | C |
| 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. | C |
| 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. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 26.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 26.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 26.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 26.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> . | C |
| Aggregated 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. This field is not used to indicate if a registered representative of the firm solicited a customer/client order. | R |
| 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 | C |

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'. | C |
| 32 | legDetails | Leg Details | See Table 101: Leg Details below. | R |

Table 101: Leg Details

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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 32.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated. | C |
| 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. Must be blank if <i>symbol</i> is populated. | C |
| 32.n.5 | side | Choice | The side of the leg. | R |
| 32.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*
- 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the event which is being routed. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> 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. | O |
| 9 | eventTimestamp | Timestamp | The date/time of the Multi-Leg Order 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 |
| 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. | C |
| 13 | senderIMID | Industry Member ID | The IMID used to identify the Industry Member that is routing the order, known by the destination. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Multi-Leg Order Accepted event 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 Complex Option Order Accepted event. | C |
| 14 | destination | Industry Member ID / 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 <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 Complex Option Order Accepted event reported by the destination exchange. | C |
| 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. Must be unique per combination of Event Date, <i>destination</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges). Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 17 | session | Text (40) | The session ID used when routing the order. 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. | C |
| 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT' | C |
| 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. | C |

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. | C |
| 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'. | C |
| 28 | pairedOrderID | Text (64) | If the order was routed as a pair, the internal identifier assigned to all orders included in the paired route. | C |
| 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'. | C |
| 31 | legDetails | Leg Details | See Table 103: Leg Details below. | R |

Table 103: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 31.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 31.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 | C |

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 <i>symbol</i> 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 <i>symbol</i> is populated. | C |
| 31.n.5 | side | Choice | The side of the leg. | R |
| 31.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*
- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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. | O |
| 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 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance. | O |
| 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> . | C |
| 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. | C |
| 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. When <i>destinationType</i> is 'F', this value must equal | C |

Multi-Leg Route Modified (MLMR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|----------------------------------|---|-------------|
| | | | the <i>senderIMID</i> on the Order Accepted event 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. | |
| 14 | destination | Industry Member ID / Exchange ID | The <i>destination</i> of the route modification. Must equal the <i>destination</i> on the Order Route event being modified. 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 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 Order Accepted event reported by the destination exchange. | C |
| 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 <i>destinationType</i> 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 <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>destination</i> , <i>senderIMID</i> , and <i>session</i> (applicable only on routes to exchanges). Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 17 | priorRoutedOrderID | Text (64) | The <i>routedOrderID</i> of the Order Route event being modified if the <i>routedOrderID</i> changed when the modification was routed to the destination. Must be populated when <i>routedOrderID</i> is populated and <i>dupROIDCond</i> is 'false'. Must be blank when <i>dupROIDCond</i> is 'true' | C |
| 18 | session | Text (40) | The session ID used when routing the modification. Must be equal to the <i>session</i> on the Order Route event being modified 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. | C |
| 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. | C |

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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> 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. | C |
| 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. | C |
| 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'. | C |
| 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'. | C |
| 34 | legDetails | Leg Details | See Table 105: Leg Details below. | R |

Table 105: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 34.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |

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.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 |
| 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 be blank if <i>symbol</i> is populated. | C |
| 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. | C |
| 34.n.5 | side | Choice | The side of the leg. | R |
| 34.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*
- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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. | O |
| 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> . | C |
| 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. | C |
| 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. | C |

Multi-Leg Route Cancelled (MLCR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|----------------------------------|--|-------------|
| | | | When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event 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. | |
| 16 | destination | Industry Member ID / Exchange ID | When <i>destinationType</i> is 'F', this value is the IMID used to identify the Industry Member that is routed order. Must equal the <i>destination</i> in the Order Route event being cancelled. Must equal the <i>receiverIMID</i> field on the 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 Order Accepted event reported by the destination exchange. | C |
| 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 <i>routedOrderID</i> reported by the destination in their Order Accepted report. Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'. | C |
| 19 | session | Text (40) | The session ID used when routing the order. Must equal the <i>session</i> in the 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 Order Accepted event by the receiving exchange. | C |
| 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. | O |
| 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> combination. | R |
| 8 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance. | O |
| 9 | eventTimestamp | Timestamp | The date/time of receipt of the Multi-Leg 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. | C |
| 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. | C |
| 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. | C |
| 15 | receiverIMID | Industry Member ID | The IMID of the Industry Member receiving the order. When <i>senderType</i> is 'F', this value must equal the <i>destination</i> field on the Multi-Leg Order Route event reported by the routing Industry Member. | R |
| 16 | senderIMID | Industry Member ID / 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 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, <i>senderIMID</i> , and <i>receiverIMID</i> . Required when <i>manualFlag</i> is 'false'. | C |
| 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT' | C |
| 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. | C |
| 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. | C |
| 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. | O |
| 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'. | C |
| 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

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 31.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 31.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. | C |
| 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 <i>symbol</i> is populated. | C |
| 31.n.5 | side | Choice | The side of the leg. | R |
| 31.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*
- 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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</i> , <i>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 <i>orderKeyDate</i> of the event from which the Order Internal Route Accepted event originated. | C |

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. Required when the <i>parentOrderKeyDate</i> is populated. If a new Order ID has not been assigned, must be blank. | C |
| 10 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance. | O |
| 11 | eventTimestamp | Timestamp | The date/time of receipt of the Multi-Leg internal 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 |
| 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT' | C |
| 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. | C |
| 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. | C |
| 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'. | C |
| 25 | legDetails | Leg Details | See Table 110: Leg Details below. | R |
| 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 <i>orderID</i> 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. | C |

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. | O |
| 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. | C |
| 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 <i>symbol</i> is populated. | C |
| 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. | C |
| 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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. Must be unique within <i>orderKeyDate</i> and <i>CATReporterIMID</i> combination. | R |
| 8 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. | O |

Multi-Leg Order Internal Route Modified (MLIM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|-------------------|--|-------------|
| | | | See Section Q for guidance. | |
| 9 | priorOrderKeyDate | Timestamp | If a new Order ID has been assigned, this is the <i>orderKeyDate</i> of the event being modified. | C |
| 10 | priorOrderID | Text (64) | If a new Order ID has been assigned, this is the <i>orderID</i> 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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. | C |
| 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 | 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT' | C |
| 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. | C |
| 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. | C |
| 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 <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. | C |
| 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'. | C |
| 30 | legDetails | Leg Details | See Table 112: Leg Details 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 <i>orderID</i> 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. | C |
| 32 | priorDeskOrderID | Text (64) | If a new <i>deskOrderID</i> has been assigned, this is the <i>deskOrderID</i> of the event being modified. When populated, the <i>priorDeskOrderID</i> must not be equal to the <i>deskOrderID</i> . | C |

Table 112: 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 |
|--------|------------|-----------|---|-------------|
| 30.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 30.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 |

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. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated. | C |
| 30.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. | C |
| 30.n.5 | side | Choice | The side of the leg. | R |
| 30.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*

5.2.4.3. 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |

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 ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> 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. <i>See Section 0</i> for guidance. | O |
| 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> . | C |
| 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. | C |
| 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. Must not be populated if the request is captured in a separate MLICR event. 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 | C |

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 multi-leg order. | O |
| 18 | deskOrderID | Text (64) | Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the order event for which the internal route modification was requested. | R |

Multi-Leg Order Internal 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 Q for guidance. | O |
| 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> . | C |
| 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. | C |
| 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 <i>deptType</i> . | 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |

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'. | C |
| 26 | legDetails | Leg Details | See Table 115: Leg Details below. | R |
| 27 | deskOrderID | Text (64) | Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

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.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 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 <i>symbol</i> is populated. | C |
| 26.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. | C |
| 26.n.5 | side | Choice | The side of the leg. | R |
| 26.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 | R |

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 |
|-------|------------|-----------|---|-------------|
| | | | quantity for the leg, or as the lowest common factor. | |

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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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. | O |
| 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 | C |

Multi-Leg Order Internal Route Cancel Request (MLICR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|---------------------|----------------|---|-------------|
| | | | an event that was reported with a different <i>CATReporterIMID</i> . | |
| 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. | C |
| 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 multi-leg order. | O |
| 15 | deskOrderID | Text (64) | Internal identifier assigned to this event by the department or desk. Required when the order is routed partially and a new <i>orderID</i> 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. | C |

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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>CATReporterIMID</i> 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. | O |
| 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. 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 |

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. | C |
| 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. | C |
| 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'. | C |
| 21 | legDetails | Leg Details | See Table 118: Leg Details below. | R |
| 22 | 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. | O |
| 23 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Table 118: Leg Details

Leg Details

| Seq # | Field Name | Data Type | Description | Include Key |
|---|------------|-----------|---|-------------|
| 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. | | | | |
| 21.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 21.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 | C |

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 <i>symbol</i> is populated. | C |
| 21.n.5 | side | Choice | The side of the leg. | R |
| 21.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*

5.2.5.2. 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |

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 ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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. <i>See Section Q</i> for guidance. | O |
| 9 | priorOrderKeyDate | Timestamp | If a new Order ID has been assigned, this is the <i>orderKeyDate</i> of the Child Order being modified. | C |
| 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. | 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 resolved under the surviving firm. Must be provided to support linkage to an event that was reported with a different <i>CATReporterIMID</i> . | C |
| 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 | C |

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. | C |
| 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. | C |
| 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'. | C |
| 24 | legDetails | Leg Details | See Table 120: Leg Details 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. | O |
| 26 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required when <i>manualFlag</i> is 'true' and the event is systematized. | C |

Table 120: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 24.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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 | C |

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>optionID</i> 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. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated. | C |
| 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. | C |
| 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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. | O |
| 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. | O |
| 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> . | C |
| 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. Full cancellation will result in a zero in the field. | R |
| 14 | numberOfLegs | Whole Quantity | Indicates the number of CAT reportable legs in the multi-leg order. | O |
| 15 | 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. | O |
| 16 | electronicTimestamp | Timestamp | The time at which the event is systematized. Required | C |

Multi-Leg Child Order Cancelled (MLCOC)

| 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 | <i>actionType</i> | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 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. | O |
| 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 <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 <i>orderKeyDate</i> of the event being modified. | C |
| 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 <i>priorOrderID</i> must not be equal to the <i>orderID</i> within the record. | C |
| 10 | underlying | Symbol | The symbol of the underlying instrument for one or more of the option legs. <i>See Section 0</i> for guidance. | O |
| 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 <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 | manualOrderKeyDate | Timestamp | The <i>orderKeyDate</i> of the related manual order. Required when <i>manualOrderID</i> is populated. | C |
| 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. | C |
| 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. | C |
| 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 <i>senderType</i> is 'F', this value must equal the <i>destination</i> field on the Multi-Leg Order Route event reported by the routing Industry Member. | C |
| 18 | senderIMID | Industry Member ID / Exchange ID | Required when the modification is received from an Industry Member. 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 Order Route event reported by the routing Industry Member. | C |
| 19 | senderType | Choice | Required when the modification is received from an Industry Member. Indicates the type of origin from which the order is routed. | C |
| 20 | routedOrderID | Text (64) | The ID for the order as sent by the routing entity. Must be unique per combination of Event Date, <i>senderIMID</i> , and <i>receiverIMID</i> . Required when <i>senderType</i> is 'F' and <i>manualFlag</i> is 'false'. | C |
| 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |
| 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. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 31.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 31.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 31.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 31.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> . | C |
| Aggregated 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 <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. 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 |
| 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'. | C |
| 36 | legDetails | Leg Details | See Table 123: Leg Details below. | R |

Table 123: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 36.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 36.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 |
| 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. | C |
| 36.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. | C |
| 36.n.5 | side | Choice | The side of the leg. | R |
| 36.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*
- 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 # | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | type | Message Type | MLOMR | 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. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the multi-leg order event for which the modification was requested. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> of the multi-leg order event for which the 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. | O |
| 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> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the modification request. 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 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. | C |
| 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. | C |
| 14 | senderIMID | Industry Member ID / Exchange ID | Required when the modification request is received from an Industry Member or an exchange. When <i>senderType</i> is 'F', this value is the IMID of the sending Industry Member from which the order is routed. | C |

Multi-Leg Order Modification Request (MLOMR)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------------|------------------|---|-------------|
| | | | When <i>senderType</i> 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. | C |
| 16 | timeInForce | Name/Value Pairs | The Time in Force for the order (e.g., DAY, IOC, GTC). | R |
| 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 <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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. | C |
| 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'. | C |
| 25 | legDetails | Leg Details | See Table 125: Leg Details below. | R |

Table 125: 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 25.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 25.n.3 | optionID | Text (22) | The 21-character OSI Symbol of the option. For FLEX Percent options, a percentage symbol (%) is appended | C |

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. | C |
| 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*

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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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. | O |
| 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. | C |
| 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. 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. 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 |

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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> of the multi-leg order event for which the cancellation was requested. | R |
| 7 | orderID | Text (64) | The <i>orderID</i> 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. | O |
| 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> . | C |
| 10 | eventTimestamp | Timestamp | The date/time of receipt of the cancel request. 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 | 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'. | C |
| 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |

Multi-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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> 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. | O |
| 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 | C |
| 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'. | C |
| 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 | C |
| 14 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0'. | C |
| 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. | C |
| 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. | O |
| 22 | legDetails | Leg Details | See Table 129: Leg Details below. | R |

Table 129: 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 Quote Supplement event. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 22.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 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 <i>symbol</i> is populated. | C |
| 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 | <i>actionType</i> | Choice | Indicates whether the event is a new event, a firm initiated correction or a repair of a CAT error. | R |
| 2 | <i>errorROEID</i> | Unsigned | Required when <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | <i>firmROEID</i> | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | R |
| 4 | <i>type</i> | Message | MLRQ | R |

Multi-Leg Routed Quote (MLRQ)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|--------------------|--|-------------|
| | | Type | | |
| 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. | O |
| 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 <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>optionID</i> 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. | O |
| 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 <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. Not required when <i>destinationType</i> is 'S' or 'N'. | C |
| 12 | routedQuoteID | Text (64) | The quote ID sent to the recipient of the quote. When <i>dupROIDCond</i> is 'false', must be unique per combination of Event Date, <i>symbol</i> , <i>destination</i> , and <i>senderIMID</i> . | R |
| 13 | dupROIDCond | Boolean | Indicates when a Routed Quote event maintains the original <i>routedQuoteID</i> . | 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 | C |
| 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'. | C |
| 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 | C |
| 17 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0'. | C |
| 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. Only applicable when an Industry Member is generating quotes and sending quotes to a non-CAT reporting entity in response to an RFQ or other similar form of solicitation. | R |
| 20 | numberOfLegs | Whole Quantity | Indicates the number of CAT reportable legs in the multi-leg 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. | C |
| 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. | O |
| 24 | legDetails | Leg Details | See Table 131: Leg Details below. | R |

Table 131: Leg Details

| Seq # | Field Name | Data Type | Description | Include Key |
|---|----------------------|---------------|---|-------------|
| 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 Quote Supplement event. | | | | |
| 24.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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 <i>optionID</i> is populated. | C |
| 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. Required if the leg being represented is an option leg. Must be blank if <i>symbol</i> is populated. | C |
| 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 | Include Key |
|-------|------------|-----------|--|-------------|
| | | | 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | quoteKeyDate | Timestamp | The <i>orderKeyDate</i> 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. | O |
| 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. | C |
| 11 | senderIMID | Industry Member ID | When supplementing a Multi-Leg Routed Quote event, the <i>senderIMID</i> of the Multi-Leg Routed Quote event that this event supplements. When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Multi-Leg Quote Received event reported by the destination. | C |
| 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. | C |

Multi-Leg Quote Supplement (MLQS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|-------------|--|-------------|
| | | | 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 Multi-Leg Quote Received event reported by the destination Industry Member. Not required when <i>destinationType</i> 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. | C |
| 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'. | C |
| 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 Table 133: Leg Details below. | C |

Table 133: Leg Details

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 Quote Supplement event. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 17.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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. | C |
| 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 <i>symbol</i> is populated. | C |

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.n.5 | side | Choice | The side of the leg. | R |
| 17.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*
- 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 [Section 3.4: Responses to RFQs and Solicitation](#) 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 | 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. | O |
| 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 <i>routedQuoteID</i> . | 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'. | C |
| 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 | C |

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'. | C |
| 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 <i>askPrice</i> field is populated with a value greater than '0'. | C |
| 19 | numberOfLegs | Whole Quantity | Indicates the number of CAT reportable legs in the multi-leg 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 <i>RFQID</i> field is populated. | R |
| 22 | quotePriceType | Choice | Indicates how the net price was represented in the price field. | C |
| 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. | O |
| 25 | legDetails | Leg Details | See Table 135: Leg Details below. | R |

Table 135: 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 Quote Supplement event. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 25.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 25.n.2 | symbol | Symbol | The symbol of the stock in the symbology of the primary listing exchange or FINRA for OTC Equity | C |

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 <i>optionID</i> 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 <i>symbol</i> is populated. | C |
| 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'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 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. | O |
| 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 *quoteID* 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 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <i>quoteKeyDate</i> , <i>CATReporterIMID</i> , and <i>symbol</i> combination. When a new quote ID is not assigned, the <i>quoteID</i> 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. | O |
| 9 | priorQuoteKeyDate | Timestamp | If a new Quote ID has been assigned, this is the <i>quoteKeyDate</i> of the event being modified. | C |
| 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 | C |

Multi-Leg Quote Modified (MLQM)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|--------------------|--------------------|---|-------------|
| | | | record. | |
| 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. | C |
| 12 | senderIMID | Industry Member ID | Required when the modification is received from an Industry Member. | C |
| 13 | routedQuoteID | Text (64) | The ID for the quote as sent by the routing entity. Must be unique per combination of Event Date, <i>optionID</i> , <i>senderIMID</i> , and <i>receiverIMID</i> . | R |
| 14 | eventTimestamp | Timestamp | The date/time the quote was modified. | R |
| 15 | bidPrice | 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 | C |
| 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'. | C |
| 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 | C |
| 18 | askQty | Whole Quantity | Quantity being asked. Must be populated with a value greater than '0' if the <i>askPrice</i> field is populated with a value greater than '0'. | C |
| 19 | numberOfLegs | Whole Quantity | Indicates the number of CAT reportable legs in the multi-leg quote. | 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 | quotePriceType | Choice | Indicates how the net price was represented in the price field. | C |
| 22 | validUntilDuration | Real Quantity | RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until. | O |
| 23 | legDetails | Leg Details | See Table 138: Leg Details below. | R |

Table 138: 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 Quote Supplement event. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 23.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 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 <i>optionID</i> is populated. | C |
| 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 <i>symbol</i> is populated. | C |
| 23.n.4 | reservedForFutureUse | | Field is Reserved for Future Use and must remain blank. | |
| 23.n.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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter | R |

Multi-Leg Order Supplement (MLOS)

| Seq # | Field Name | Data Type | Description | Include Key |
|---|------------------|--------------------|--|-------------|
| | | | IMID. | |
| 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 <i>CATReporterIMID</i> in the filename. | O |
| 6 | orderKeyDate | Timestamp | The <i>orderKeyDate</i> 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. See Section 0 for guidance. | O |
| 9 | eventTimestamp | Timestamp | The date/time of Multi-Leg order event this event supplements. 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 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 <i>aggregatedOrders</i> on a Multi-Leg New Order or Multi-Leg Order Modified event. Refer to Appendix C for representative order linkage requirements. | C |
| Aggregated Orders – Start | | | | |
| For each order being combined <i>n</i> , the following values are required. | | | | |
| 11.n.1 | orderID | Text (64) | <i>orderID</i> of the order being combined. | R |
| 11.n.2 | orderKeyDate | Timestamp | <i>orderKeyDate</i> of the order being combined. | R |
| 11.n.3 | quantity | Real Quantity | Required when a partial quantity of the order is being combined. | C |
| 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 <i>CATReporterIMID</i> . | C |
| 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. | C |
| 13 | senderIMID | Industry Member ID | When supplementing a Multi-Leg Order Route event, the <i>senderIMID</i> of the Multi-Leg Order Route event that this event supplements. | C |

Multi-Leg Order Supplement (MLOS)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|-------------------|----------------------------------|---|-------------|
| | | | <p>When <i>destinationType</i> is 'F', this value must equal the <i>senderIMID</i> on the Order Accepted event reported by the destination.</p> <p>When <i>destinationType</i> is 'E', this value must equal the <i>routingParty</i> reported by the exchange on the Participant Complex Option Order Accepted event.</p> | |
| 14 | destination | Industry Member ID / Exchange ID | <p>When supplementing a Multi-Leg Order Route event, the <i>destination</i> of the Multi-Leg Order Route event that this event supplements.</p> <p>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.</p> <p>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 Complex Option Order Accepted event reported by the destination exchange.</p> | C |
| 15 | destinationType | Choice | <p>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.</p> | C |
| 16 | routedOrderID | Text (64) | <p>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.</p> <p>Required when <i>destinationType</i> is 'F' or 'E' and <i>manualFlag</i> is 'false'.</p> | C |
| 17 | session | Text (40) | <p>When supplementing a Multi-Leg Order Route event, the <i>session</i> of the Multi-Leg Order Route event that this event supplements.</p> <p>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.</p> | C |
| 18 | routeRejectedFlag | Boolean | <p>Indicates the routed order was not accepted by the destination (rejected or no response) when marked 'true'.</p> | R |
| 19 | legDetails | Leg Details | <p>Required when representing additional legs on a Multi-Leg record. See Table 140: Leg Details below.</p> | C |

Table 140: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 19.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |
| 19.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 |
| 19.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. | C |
| 19.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. | C |
| 19.n.5 | side | Choice | The side of the leg. | R |
| 19.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*
- 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 [FAQ D26](#)), 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 <i>actionType</i> is 'RPR'. Must be blank when <i>actionType</i> is 'NEW'. | C |
| 3 | firmROEID | Text (64) | An identifier assigned to the record by the reporting firm. Formatted as <Event Date>_<firm ROE Identifier> Must be unique for the Event Date and CAT Reporter IMID. | 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 <i>CATReporterIMID</i> in the filename. | O |
| 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 <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 <i>orderKeyDate</i> of the event being modified. | C |
| 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 | C |

Multi-Leg Order Effect (MLOE)

| Seq # | Field Name | Data Type | Description | Include Key |
|-------|----------------|------------------|---|-------------|
| | | | <i>priorOrderID</i> must not be equal to the <i>orderID</i> 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. | O |
| 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. Required when <i>orderType</i> is 'LMT'. Must be blank when <i>orderType</i> is 'MKT'. | C |
| 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. | C |
| 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 multi-leg order. | R |
| 19 | priceType | Choice | Indicates how the net price was represented in the price field. Required when <i>orderType</i> is 'LMT'. | C |
| 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) | C |
| 21 | legDetails | Leg Details | See Table 142: Leg Details below. | R |

Table 142: Leg Details

| 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. | | | | |
| Seq # | Field Name | Data Type | Description | Include Key |
| 21.n.1 | legRefID | Text (64) | Unique identifier of the leg. | O |

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. | C |
| 21.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. | C |
| 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 <i>symbol</i> is populated. | C |
| 21.n.5 | side | Choice | The side of the leg. | R |
| 21.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*

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'. | O |
| 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. | C |

| 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:

1. 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", "type": "MENO", "orderKeyDate": "20170801T143031.000000", "orderID": "O12345", "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 }
```

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.
2. 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: | <u>Allowable CSV Formats:</u> |
|--|-------------------------------|

| Seq | Include Key | |
|-----|-------------|----------|
| 1 | R | 1, 2, 3, |
| 2 | R | 1, 2, 3 |
| 3 | C | 1, 2, |
| | | 1, 2 |

Event ABC is updated to include a new conditional field: Allowable CSV Formats:

| Seq | Include Key | |
|-----|-------------|-------------|
| 1 | R | 1, 2, 3, 4, |
| 2 | R | 1, 2, 3, 4 |
| 3 | C | 1, 2, 3, |
| 4 | C | 1, 2, 3 |
| | | 1, 2, |
| | | 1, 2 |

Event ABC is updated to include a new required field: Allowable CSV Formats:

| Seq | Include Key | |
|-----|-------------|----------------|
| 1 | R | 1, 2, 3, 4, 5, |
| 2 | R | 1, 2, 3, 4, 5 |
| 3 | C | |
| 4 | C | |
| 5 | R | |

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:

1. 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".
2. 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.
6. 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.
7. 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.
10. 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
        2345,20170901T120102.000000,,20170901T120102.123456,false,,C,,1100,
        100,100,,,,,,,,,,,,,
```

6.1.5. Schema

An [Industry Member Schema](#) 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.
 - o **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.
 - o **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 Table 3: Data Types . |
| 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 [Table 15: Equity Events](#) and [Table 60: Summary of Simple Option Events](#). 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:

| Element | Description |
|---------|-------------|
|---------|-------------|

| | |
|---------------------|--|
| Name | Field Name. Case sensitive. |
| dataType | Data Type or an array of Data Types. |
| JSONDataType | The JSON standard data type or an array of 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 | Y | Y |
| AWS PrivateLink | Y | Y |
| 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 [FINRA CAT Connectivity Supplement for Industry Members](#).

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 multi-factor 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 Section 6: Submission Process.
- 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.

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 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 [FINRA CAT Connectivity Supplement for Industry Members](#) 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.
6. 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 Submitter ID>_<CAT Reporter IMID>_<File Generation Date>[_<Group>_]<File Kind>_<File Number> | R |
| File Instruction | Alphanumeric (4) | Applicable to Delete Files. Set equal to '.DEL' for feedback associated with a Delete File Instruction. | C |
| Stage | Alphanumeric (9) | Processing stage associated with the Feedback including: <ul style="list-style-type: none"> • <code>ack</code> – Acknowledgement • <code>integrity</code> – File Integrity • <code>ingestion</code> – 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. | C |
| 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 |
| Type | | 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. | C |
| 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.
2. 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. |
| Linkage Error Details – Meta File Block Start | | | |

| Seq | Name | Data Type (Length) | Description |
|---|----------------------|--------------------|--|
| For each Linkage Type <i>n</i> , the following values will be included: | | | |
| 14.n.1 | linkageType | Alphanumeric (20) | Not applicable for the acknowledgement stage. |
| 14.n.2 | errorTypeCount | Unsigned | |
| 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 Acknowledgement 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 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:

1. 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.n.1 | linkageType | Alphanumeric (20) | Not applicable for the integrity stage. |
| 14.n.2 | errorTypeCount | Unsigned | Not applicable to the integrity stage. |
| 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> |

| | |
|--|--|
| | <pre>"stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success" }</pre> |
|--|--|

| Data File Integrity Error (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", "stage": "FILE_INTEGRITY", "stageCompleteTimestamp": "20170307T154152.000001089", "status": "Failure", "severity": "Error", "code": 1104 }</pre> |

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 | <pre>LINE 1 4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089,FILE_INTEGRITY, 20170307T154152.000001089,Success,,,,,,,,</pre> |

| 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 | <pre>LINE 1 4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089,FILE_INTEGRITY, 20170307T154152.000001089,Failure,Error,1104,,,,,</pre> |

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.n.1 | linkageType | Alphanumeric (20) | Not applicable for the ingestion stage. |
| 14.n.2 | errorTypeCount | Unsigned | |
| 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 Appendix E 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 (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 | <pre>{ "feedbackVersion": "4.1.0",</pre> |

| Data File Ingestion Error (JSON) | |
|-----------------------------------|---|
| Contents | <pre> "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. bz2", "errorCount": 2, "totalRecordsCount": 6543 } </pre> |
| Error Data Feedback File Name | SUBID_MYID_20170307_OrderEvents_000123.ingestion.error.json.bz2 |
| Error Data Feedback File Contents | <pre> {"errorCode":[2001,2002],"actionType":"RPR","errorROEID":123456,"errorRecord": {"\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\":"1000","\minQty\":"100","\leavesQty\":"100"}} {"errorCode":[2003],"actionType":"RPR","errorROEID":144477,"errorRecord": {"\actionType\":"NEW","\firmROEID\":"20170901_ROE1230011","\type\":"MEOJ","\orderKeyDate\":"20170901T120162.123456","\eventTimestamp\":"20170901T120162.123456","\manualFlag\":"false","\symbol\":"XYZ","\orderID\":"T12355","\priorOrderID\":"T12344","\priorOrderKeyDate\":"20170901T120092.000000","\initiator\":"C","\quantity\":"1100","\minQty\":"100","\leavesQty\":"100"}} </pre> |

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 | <pre> LINE 1 4.1.0,SUBID,MYID,20170307, SUBID_MYID_20170307_OrderEvents_000123.csv.bz2, 20170307T153552.000001089,INGESTION, 20170307T154152.000001089,Success,,,,0,,,, 6543 </pre> |

| 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.csv |
| Error Data Feedback File Contents | LINE 1 | 2001 2002,RPR,123456,<error record> |
| | LINE 2 | 2003,RPR,123457,<error record> |

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 [Section 2.6](#).

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 are named by CAT. These feedback files represent Linkage Feedback across all submissions for the CATReporter/IMID/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 |
|--|---|
| <ul style="list-style-type: none"> • Unlinked error reported by the CAT Reporter for all event types | Table 159: Linkage Error – Event Reported by CAT Reporter |
| <ul style="list-style-type: none"> • Named on an Unlinked Industry Member Order Event | Table 160: Linkage Errors – Named on Unlinked Industry Member Order Event |
| <ul style="list-style-type: none"> • Named on an Unlinked Industry Member Quote Event | Table 161: Linkage Errors – Named on Unlinked Industry Member Quote Event |
| <ul style="list-style-type: none"> • 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 |
| <ul style="list-style-type: none"> • Named on an Unlinked Trade Report | Table 163: Linkage Errors – Named on Unlinked Trade Report |
| <ul style="list-style-type: none"> • 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. Refer to Linkage Error Details – Metadata Block |

| Seq | Name | Data Type (Length) | Description |
|---|----------------------|--------------------|---|
| | | | for information that will be included. |
| Linkage Error Details – Meta Block Start | | | |
| For each Linkage Type <i>n</i> , the following values will be included: | | | |
| 14.n.1 | linkageType | Alphanumeric (20) | The Linkage Type. Values include: <ul style="list-style-type: none"> • Intrafirm (includes OOS and FDID validation errors) • Interfirm • Exchange • Trade |
| 14.n.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. <i>doneForDay=true</i> 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

Table 159: Linkage Error – Event Reported by CAT Reporter 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 Table through Table 163 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 <i>actionType</i> and <i>errorROEID</i> . 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 Section 7.5.1.7 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 [CAT Alert 2019-04](#) 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 Section 7.5.1.7 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 [CAT Alert 2019-04](#) 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) | <i>firmROEID</i> 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 | <i>bidPrice</i> as populated on the unlinked event. |
| 9 | bidQty | Whole Quantity | <i>bidQty</i> as populated on the unlinked event. |
| 10 | askPrice | Price | <i>askPrice</i> as populated on the unlinked event. |
| 11 | askQty | Whole Quantity | <i>askQty</i> as populated on the unlinked event. |
| 12 | senderIMID | Industry Member ID | <i>senderIMID</i> as populated on the unlinked event. |
| 13 | receiverIMID | Industry Member ID | <i>receiverIMID</i> when populated on the unlinked event. |
| 14 | destination | Industry Member ID | <i>destination</i> when populated on the unlinked event. |
| 15 | routedQuoteID | Text (64) | <i>routedQuoteID</i> as populated on the unlinked event. |
| 16 | receivedQuoteID | Text (64) | <i>receivedQuoteID</i> 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) | <i>RFQID</i> 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 [CAT Alert 2019-04](#) 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 [CAT Alert 2019-04](#) 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 <code>firmDesignatedID</code> or <code>newOrderFDID</code> 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 <code>type</code> containing the <code>value</code> 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 ORDERID123 |
| 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 RTDODR456 SSSN1 |
| TRF | Date portion of eventTimestamp CATReporterIMID CAT Derived Issue ID tapeTradeID marketCenterID | 2021-08-04 ZZZT1 26397 TAPETRDID123 MKTCENTER1 |
| 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 ORDERID123@ 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 Name | SUBID_MYID_20170307_OrderEvents.linkage_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.error_000001.json.bz2", "errorCount": 2102, "errorDetails": [{ "linkageType": "Intrafirm", "errorTypeCount": 2101 }, { "linkageType": "Interfirm", "errorTypeCount": 1 }, { "linkageType": "Exchange", "errorTypeCount": 0 }] }</pre> |

| Linkage Discovery Error (JSON) | |
|-----------------------------------|---|
| | <pre> "linkageType": "Trade", "errorTypeCount": 0 }], "doneForDay": true } </pre> |
| Error Data Feedback File Name | SUBID_MYID_20170307_OrderEvents.linkage.error_000001.json.bz2 |
| Error Data Feedback File Contents | <pre> [3002,3004],RPR,123456,<error record as per Table 159: Linkage Error - Event Reported by CAT Reporter> 5004,RPR,123457,<error record as per Table 163: Linkage Errors - Named on Unlinked Trade Report> 3701,RPR,543210,<error record as per Table 159: Linkage Error - Event Reported by CAT Reporter> 3701,RPR, 544320,<error record as per Table 159: Linkage Error - Event Reported by CAT Reporter> </pre> |
| Error Summary File Name | SUBID_MYID_20170307.linkage.error.summary_000001.json.bz2 |
| Error Summary File Contents | <pre> { "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" } </pre> |

| 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) | |
|---|--|
| | <pre> }, { "linkageType": "Interfirm", "errorTypeCount": 1 }, { "linkageType": "Exchange", "errorTypeCount": 0 }, { "linkageType": "Trade", "errorTypeCount": 0 }], "doneForDay": true } </pre> |
| Error Data Feedback File Name | SUBID_MYID_20170307_OrderEvents.linkage.outstanding.error_000001.json.bz2 |
| Error Data Feedback File Contents | <pre> { "errorCode": [3002,3004] "actionType": "RPR" "errorROEID": 123456 "errorRecord": {<error record as per <u>Table 159: Linkage Error - Event Reported by CAT Reporter</u>>} } { "errorCode": [5004] "actionType": "RPR" "errorROEID": 123457 "errorRecord": {<error record as per <u>Table 163: Linkage Errors - Named on Unlinked Trade Report</u>>} } </pre> |

| 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_MYID_20170307_OrderEvents.linkage_000001.csv |
| Meta Feedback File Contents | LINE 1 4.1.0,SUBID,MYID,20170307,,,LINKAGE,20170307T154152.000001089,Failure,,, SUBID_MYID_20170307_OrderEvents.linkage.error_000001.csv.bz2,2102, Intrafirm@2101 Interfirm@1 Exchange@0 Trade@0,true |
| Error Data Feedback File Name | SUBID_MYID_20170307_OrderEvents.linkage.error_000001.csv.bz2 |
| Error Data Feedback File Contents | LINE 1 3002 3004,RPR,123456,<error record as per <u>Table 159: Linkage Error - Event Reported by CAT Reporter</u> > |
| | LINE 2 5004,RPR,123457,<error record as per <u>Table 163: Linkage Errors - Named on Unlinked Trade Report</u> > |
| | LINE 3 3701,RPR,123458,<error record as per <u>Table 159: Linkage Error - Event Reported by CAT Reporter</u> > |
| Error Summary File Name | SUBID_MYID_20170307.linkage.error.summary_000001.csv.bz2 |
| Error Summary File Contents | Line 1 FDID1,MENO,1500,3701,firmDesignatedID not found |
| | Line 2 FDID2,MOOT,600,3706,firmDesignatedID in sellDetails not valid on event date |

| Outstanding Linkage Discovery Errors (CSV) | |
|--|--|
| Meta Feedback File Name | SUBID_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_MYID_20170307_OrderEvents.linkage.outstanding.error_000001.csv.bz2 |
| Error Data Feedback File Contents | LINE 1 3002 3004,RPR,123456,<error record as per <u>Table 159: Linkage Error - Event Reported by CAT Reporter</u> > |
| | LINE 2 5004,RPR,123457,< error record as per <u>Table 163: Linkage Errors - Named on Unlinked Trade Report</u> > |

| No Outstanding Linkage Discovery Errors (CSV) | |
|---|--|
| Meta Feedback File Name | SUBID_MYID_20170307_OrderEvents.linkage.outstanding_000001.success |
| 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 [Section 4 Equity Events](#),

and Section 5 Option Events, 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) |
|--|
| <pre>{ "actionType": "RPR", "errorROEID": 12345678, "firmROEID": "20170801_firmROEO12345", "type": "MENO", "orderKeyDate": "20170801T143031.000000", "orderID": "O12345", "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 }</pre> |

7.6.1.2. CSV Repair Record Example

| Repair Record Example (CSV) | |
|-----------------------------|---|
| LINE | RPR,12345678,20170801_firmROEO12345,MENO,,20170801T143031.000000,O12345,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) |
|--|
| <pre>{ "actionType": "COR", "firmROEID": "20170801_firmROEO12345", "type": "MENO", "orderKeyDate": "20170801T143031.000000", "orderID": "O12345", "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 }</pre> |

7.6.2.2. CSV Firm-Initiated Correction Example

| Firm-Initiated Correction Example (CSV) | |
|---|---|
| LINE | COR,,20170801_firmROEO12345,MENO,,20170801T143031.000000,O12345,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 re-used 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 <i>errorROEID</i> equal to the <i>errorROEID</i> value provided by CAT in the respective error feedback. | C |
| 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. | C |

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 | DEL, 45678901, |
|------|----------------|

Delete Record Example for an Event without an Associated CAT Error (CSV)

| | |
|------|---------------------------|
| LINE | 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.

5. 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 [subscribe](#) 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 Values | | |
| Y | 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 | <p>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.</p> <p>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.</p> |
| YE | Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked OMS-EMS or position fill workflow) | <p>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.</p> <p>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 <i>aggregatedOrders</i> field must be blank.</p> <p>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.</p> |
| Options Values | | |
| O | 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-Leg 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. |
| Common 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' or 'YP' 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 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 <i>aggregatedOrders</i> field. |
| YE | Representative eligible - Order eligible for customer/client fills via an unlinked system (unlinked OMS-EMS or position fill workflow) | <p>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.</p> <p>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 <i>accountHolderType</i> must be populated with the type of firm account.</p> <p>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.</p> |
| 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 Values | | |
| O | 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, <i>firmDetails</i> 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-Leg 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

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|---|----------------------|------|--------------------------------|------|
| | 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 <i>Applies when a firm's order handling and/or reporting system does not allow for a route to be directly associated with the customer/client order or child order (with the same Order ID) and instead must generate/report a route from a separate order (with a different Order ID) created by the firm for the purpose of working the customer/client order.</i> | | | | |
| 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

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|--|----------------------|------|--------------------------------|------|
| | MENO | MEOT | MENO | MEOT |
| Principal Net Trading - assumed that all street side fills are guaranteed to go to the customer/client 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

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|--|----------------------|------|--------------------------------|------|
| | 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

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|--|----------------------|------|--------------------------------|------|
| | 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

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|--|----------------------|------|--------------------------------|------|
| | 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 [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 173: Requirements for Both Linkage and Marking of Multi-Leg Option Orders

| Scenario Description | Is Linkage Required? | | Is Rep Order Marking Required? | |
|---|----------------------|-----------|--------------------------------|-----------|
| | 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 | <p>The date and time the event occurred.</p> <p>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.</p> <p>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.</p> | <p><i>eventTimestamp</i> is a field defined on every CAT event.</p> <p>Used to assign the CAT Trading Day.</p> |
| Event Date | <p>The date portion of the Event Timestamp.</p> | <p>Part of all Route Linkage Keys and the TRF Linkage Key, used to link records within the Event Date.</p> <p>Required to be populated as the prefix of a <i>firmROEID</i> assignment.</p> |
| File Generation Date | <p>The date the file was generated or reported.</p> | <p>Used to guarantee uniqueness for a file across dates.</p> |
| CAT Trading Day | <p>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.</p> <p>Weekends and holidays are not considered a Trading Day.</p> <p>Trading Days that close early end 15 minutes after the Market Close.</p> <p>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.</p> <p>Refer to Section 6.4 for more information. Examples demonstrating the calculation of CAT Trading Day, Reporting Due Date and Repair Due Date.</p> | <p>Used to calculate the submission due date, and corrections due date.</p> <p>Submission Due Date: CAT Trading Day + 1 @ 8:00 AM ET</p> <p>Correction Due Date: CAT Trading Day + 3 @ 8:00AM ET</p> |
| Trade Date | <p>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.</p> <p>An event occurring on a weekend or holiday will be assigned to the next Trade Date.</p> | <p>Used to calculate the due date of data delivered to Regulatory Users.</p> <p>Due Date for Data and Associated Lifecycle Assignment delivery to Regulatory Users: T+5 @ 8:00 AM ET</p> <p>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.</p> |

| 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. | <i>orderKeyDate</i> 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. | <i>tradeKeyDate</i> 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. | <i>quoteKeyDate</i> 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. | <i>fillKeyDate</i> 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 | <i>allocationKeyDate</i> 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 <i>accountHolderType</i> | When required, <i>accountHolderType</i> must be populated with one of the allowable values. | Error |
| 2002 | Missing or Invalid <i>actionType</i> | <i>actionType</i> must be populated with one of the allowable values. | Error |
| 2003 | Missing or Invalid <i>affiliateFlag</i> | <i>affiliateFlag</i> must be populated with one of the allowable values. | Error |
| 2004 | Missing or Invalid <i>aggregatedOrders</i> | If populated, <i>aggregatedOrders</i> must be in the correct format. | Error |
| 2005 | Missing or Invalid <i>askPrice</i> | When required, <i>askPrice</i> must be in the correct format. Required when <i>askQty</i> is populated. | Error |
| 2006 | Missing or Invalid <i>askQty</i> | When required, <i>askQty</i> must be in the correct format. Required <i>askPrice</i> is populated. | Error |
| 2007 | Missing or Invalid <i>atsDisplayInd</i> | When required, <i>atsDisplayInd</i> must be one of the allowable values. | Error |
| 2008 | Missing or Invalid <i>atsOrderType</i> | When required, <i>atsOrderType</i> must be equal to a unique identifier representing the specific order type provided to CAT by the ATS. | Error |
| 2009 | Missing or Invalid <i>bidPrice</i> | When required, <i>bidPrice</i> must be in the correct format; must be populated if <i>bidQty</i> is populated. | Error |
| 2010 | Missing or Invalid <i>bidQty</i> | When required, <i>bidQty</i> must be in the correct format; must be populated if <i>bidPrice</i> is populated. | Error |
| 2011 | Invalid <i>CATReporterIMID</i> | If populated, <i>CATReporterIMID</i> must be valid for the Event Date and must equal the <i>CATReporterIMID</i> in the filename. | Error |
| 2012 | Missing or Invalid <i>cancelQty</i> | <i>cancelQty</i> must be populated in the correct format. | Error |
| 2013 | Missing or Invalid <i>cancelFlag</i> | <i>cancelFlag</i> must be populated in the correct format. | Error |
| 2014 | Missing or Invalid <i>cancelTimestamp</i> | 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 <i>capacity</i> | <i>capacity</i> must be populated with one of the allowable values. | Error |
| 2017 | Missing or Invalid <i>custDsplIntrFlag</i> | <i>custDsplIntrFlag</i> must be populated with one of the allowable values. | Error |
| 2018 | Missing or Invalid <i>deptType</i> | <i>deptType</i> must be populated with one of the allowable values. | Error |
| 2019 | Combination of <i>destination</i> and <i>destinationType</i> is Invalid | For Route Events, the following <i>destinationType</i> and <i>destination</i> combinations are required: <ul style="list-style-type: none"> If <i>destinationType</i> is 'F' or 'O', the <i>destination</i> must be the IMID of an Industry Member. Must be valid for the Event Date. | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|--|---|---------------|
| | | <ul style="list-style-type: none"> If <i>destinationType</i> is 'E', the <i>destination</i> must be one of the allowable values. If <i>destinationType</i> is 'D', the <i>destination</i> must be one of the allowable values. | |
| 2020 | Missing or Invalid <i>destinationType</i> | <i>destinationType</i> must be populated with one of the allowable values. | Error |
| 2021 | Missing or Invalid <i>displayPrice</i> | When required, <i>displayPrice</i> must be in the correct format. | Error |
| 2022 | Missing or Invalid <i>displayQty</i> | When required, <i>displayQty</i> must be in the correct format. | Error |
| 2023 | Missing or Invalid <i>dupROIDCond</i> | <i>dupROIDCond</i> must be populated with one of the allowable values. | Error |
| 2024 | Missing or Invalid <i>electronicDupFlag</i> | <i>electronicDupFlag</i> must be populated and is one of the allowable values. | Error |
| 2025 | Invalid <i>electronicTimestamp</i> | <i>electronicTimestamp</i> must be in the correct format. | Error |
| 2026 | Missing or Invalid <i>errorROEID</i> | <i>errorROEID</i> must be blank when the <i>actionType</i> is 'NEW'; must be populated when <i>actionType</i> is 'RPR'. | Error |
| 2027 | Missing or Invalid <i>eventTimestamp</i> | For all applicable events with the exception of Child Orders, <i>eventTimestamp</i> must be in the correct format. If <i>manualFlag</i> is true, <i>eventTimestamp</i> must be reported in increments of at least one second. If <i>manualFlag</i> is false, <i>eventTimestamp</i> must be reported in increments of at least milliseconds. | Error |
| 2028 | Combination of <i>exchOriginCode</i> and <i>destinationType</i> is invalid | For Option Order Route events, the following <i>exchOriginCode</i> and <i>destinationType</i> combination are required: <ul style="list-style-type: none"> If <i>destinationType</i> is not E, <i>exchOriginCode</i> must be blank. If <i>destinationType</i> is E, <i>exchOriginCode</i> must be populated. | Error |
| 2030 | Missing or Invalid <i>fillKeyDate</i> | <i>fillKeyDate</i> must be populated in the correct format. | Error |
| 2031 | Missing or Invalid <i>firmDesignatedID</i> | 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 <i>firmROEID</i> | <i>firmROEID</i> must be populated and in the correct format. | Error |
| 2033 | Invalid Event Date in the <i>firmROEID</i> | 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 <i>fulfillmentID</i> | <i>fulfillmentID</i> must be populated in the correct format. | Error |
| 2035 | Missing or Invalid <i>fulfillmentLinkType</i> | <i>fulfillmentLinkType</i> must be populated with one of the allowable values. | Error |
| 2036 | Invalid <i>handlingInstructions</i> | <i>handlingInstructions</i> must be in the correct format and must include allowable values. Name and valid paired Value must be provided when applicable. | Error |
| 2037 | Invalid <i>infoBarrierID</i> | <i>infoBarrierID</i> must be in the correct format. | Error |
| 2038 | Missing or Invalid <i>initiator</i> | <i>initiator</i> must be populated with one of the allowable values. | Error |
| 2039 | Missing or Invalid <i>isolnd</i> | When required, <i>isolnd</i> value must be one of the allowable | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|---|--|---------------|
| | | values. | |
| 2040 | Missing or Invalid <i>leavesQty</i> | 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 <i>manualFlag</i> | When required, <i>manualFlag</i> must be one of the allowable values. | Error |
| 2042 | Missing or Invalid <i>manualOrderKeyDate</i> | <i>manualOrderKeyDate</i> must be in the correct format; required if <i>manualOrderID</i> is populated. | Error |
| 2043 | Missing or Invalid <i>manualOrderID</i> | <i>manualOrderID</i> must be in the correct format. | Error |
| 2044 | Missing or Invalid <i>marketCenterID</i> | When required, <i>marketCenterID</i> must be one of the allowable values. | Error |
| 2045 | Invalid <i>minQty</i> | <i>minQty</i> must be in the correct format | Error |
| 2046 | Invalid <i>mpStatusCode</i> | <i>mpStatusCode</i> must be one of the allowable values. | Error |
| 2047 | Missing or Invalid <i>nbboSource</i> | When required, <i>nbboSource</i> must be one of the allowable values. | Error |
| 2048 | Missing or Invalid <i>nbboTimestamp</i> | When required, <i>nbboTimestamp</i> must be in the correct format. | Error |
| 2049 | Missing or Invalid <i>nbbPrice</i> | When required, <i>nbbPrice</i> must be in the correct format. | Error |
| 2050 | Missing or Invalid <i>nbbQty</i> | When required, <i>nbbQty</i> must be in the correct format. | Error |
| 2051 | Missing or Invalid <i>nboPrice</i> | When required, <i>nboPrice</i> must be in the correct format. | Error |
| 2052 | Missing or Invalid <i>nboQty</i> | When required, <i>nboQty</i> must be in the correct format. | Error |
| 2053 | Missing or Invalid <i>negotiatedTradeFlag</i> | <i>negotiatedTradeFlag</i> must be populated and one of the allowable values. | Error |
| 2054 | Missing or Invalid <i>sideDetailsInd</i> | <i>sideDetailsInd</i> must be populated with one of the allowable values. | Error |
| 2056 | Missing or Invalid <i>onlyOneQuoteFlag</i> | <i>onlyOneQuoteFlag</i> must be populated with one of the allowable values if required to populate. | Error |
| 2057 | Missing or Invalid <i>openCloseIndicator</i> | When required, <i>openCloseIndicator</i> must be one of the allowable values. | Error |
| 2058 | Missing or Invalid <i>optionID</i> | <i>optionID</i> must be populated in the correct format. | Error |
| 2060 | <i>optionID</i> not valid on Event Date | <i>optionID</i> is not valid on the event date. <ul style="list-style-type: none"> For allocation events <i>tradeDate</i> is used. For all other events date portion of <i>eventTimestamp</i> is used. | Error |
| 2061 | Missing or Invalid <i>orderID</i> | <i>orderID</i> must be populated in the correct format. | Error |
| 2062 | Missing or Invalid <i>orderType</i> | <i>orderType</i> must be populated one of the allowable values. | Error |
| 2063 | Missing or Invalid <i>orderKeyDate</i> | <i>orderKeyDate</i> must be populated and in the correct format. | Error |
| 2064 | Missing or Invalid <i>originatingIMID</i> | 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 <i>parentOrderID</i> | <i>parentOrderID</i> must be populated in the correct format. | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|---|---|---------------|
| 2066 | Missing or Invalid <i>parentOrderKeyDate</i> | <i>parentOrderKeyDate</i> must be populated in the correct format. | Error |
| 2067 | Missing or Invalid <i>price</i> | <i>price</i> must be in the correct format. | Error |
| 2068 | Missing or Invalid <i>priorFillKeyDate</i> | When required, <i>priorFillKeyDate</i> must be populated and in the correct format. | Error |
| 2070 | Missing or Invalid <i>priorFulfillmentID</i> | When required, <i>priorFulfillmentID</i> must be in the correct format. | Error |
| 2071 | Missing or Invalid <i>priorOrderID</i> | When required, <i>priorOrderID</i> must be populated in the correct format. | Error |
| 2072 | Missing or Invalid <i>priorOrderKeyDate</i> | When required, <i>priorOrderKeyDate</i> must be populated in the correct format. | Error |
| 2073 | Missing or Invalid <i>priorQuoteKeyDate</i> | When required, <i>priorQuoteKeyDate</i> must be populated in the correct format. | Error |
| 2074 | Missing or Invalid <i>priorQuoteID</i> | When required, <i>priorQuoteID</i> must be populated and must be in the correct format. | Error |
| 2076 | Missing or Invalid <i>quantity</i> | <i>quantity</i> must be in the correct format. | Error |
| 2077 | Missing or Invalid <i>quoteID</i> | <i>quoteID</i> must be populated in the correct format. | Error |
| 2078 | Missing or Invalid <i>quoteKeyDate</i> | <i>quoteKeyDate</i> must be populated and in the correct format. | Error |
| 2080 | Missing or Invalid <i>quoteRejectedFlag</i> | When required, <i>quoteRejectedFlag</i> must be populated in one of the allowable values. | Error |
| 2081 | Missing or Invalid <i>receivedQuoteID</i> | <i>receivedQuoteID</i> must be populated in the correct format. | Error |
| 2082 | Missing or Invalid <i>receiverIMID</i> | <i>receiverIMID</i> must be populated in the correct format. Must be valid for the Event Date. | Error |
| 2083 | Missing or Invalid <i>receivingDeskType</i> | <i>receivingDeskType</i> must be populated in one of the allowable values. | Error |
| 2084 | Invalid <i>reportingExceptionCode</i> | <i>reportingExceptionCode</i> must be one of the allowable values. | Error |
| 2085 | Missing or Invalid <i>representativeInd</i> | <i>representativeInd</i> must be populated in one of the allowable values. | Error |
| 2086 | Invalid <i>routedOrderID</i> | <i>routedOrderID</i> must be populated in the correct format. | Error |
| 2087 | Invalid <i>routedQuoteID</i> | When required, <i>routedQuoteID</i> must be populated in the correct format. | Error |
| 2088 | Invalid <i>routeRejectedFlag</i> | <i>routeRejectedFlag</i> must be one of the allowable values. | Error |
| 2089 | Combination of <i>senderType</i> and <i>senderIMID</i> is invalid | If <i>senderType</i> = F or O, <i>senderIMID</i> is the IMID of an Industry Member. If <i>senderType</i> = E, <i>senderIMID</i> must be one of the allowable values. | Error |
| 2090 | Missing or Invalid <i>senderType</i> | When required, <i>senderType</i> must be one of the allowable values. | Error |
| 2091 | Missing or Invalid <i>senderIMID</i> | When required, <i>senderIMID</i> must be populated in the correct format. Must be valid for the Event Date. | Error |
| 2092 | Missing or Invalid <i>seqNum</i> | When required, <i>seqNum</i> must be in the correct format. | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|--|---|---------------|
| 2093 | Missing or Invalid <i>session</i> | When required, <i>session</i> must be populated. Required when <i>destinationType</i> is 'E' or 'D'. | Error |
| 2095 | Missing or Invalid <i>side</i> | <i>side</i> must be populated in one of the allowable values as defined in Appendix G: Data Dictionary . | Error |
| 2096 | Missing or Invalid <i>symbol</i> | <i>symbol</i> must be populated in the correct format. | Error |
| 2098 | <i>symbol</i> not valid on Event Date | <i>symbol</i> is not valid on the event date. <ul style="list-style-type: none"> For allocation events <i>tradeDate</i> is used. For all other events date portion of <i>eventTimestamp</i> is used. | Error |
| 2099 | <i>symbol</i> 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 <i>tapeTradeID</i> | When required, <i>tapeTradeID</i> must be populated. When populated, <i>tapeTradeID</i> must be in the correct format. | Error |
| 2101 | Missing or Invalid <i>timeInForce</i> | <i>timeInForce</i> 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 <i>tradeID</i> | <i>tradeID</i> must be populated in the correct format. | Error |
| 2103 | Missing or Invalid <i>tradeKeyDate</i> | <i>tradeKeyDate</i> must be populated in the correct format. | Error |
| 2104 | Missing or Invalid <i>tradingSession</i> | <i>tradingSession</i> must be populated in one of the allowable values. | Error |
| 2105 | Missing or Invalid <i>type</i> | For each event type, <i>type</i> must be populated and one of the allowable values. | Error |
| 2106 | Missing or Invalid <i>unsolicitedInd</i> | <i>unsolicitedInd</i> must be populated in one of the allowable values. | Error |
| 2107 | Invalid <i>workingPrice</i> | When provided, <i>workingPrice</i> must be populated in the correct format. <i>workingPrice</i> must be blank if <i>atsDisplayInd</i> is blank. When required, <i>workingPrice</i> must be populated in the correct format if <i>atsDisplayInd</i> is populated. If no <i>workingPrice</i> is applicable, it must be 0. | Error |
| 2108 | Missing or Invalid <i>buyDetails</i> | If <i>sideDetailsInd</i> = BUY, <i>buyDetails</i> must be populated. If <i>sideDetailsInd</i> = SELL, <i>buyDetails</i> must not be populated. | Error |
| 2109 | Missing or Invalid <i>orderID</i> in <i>buyDetails</i> | When required, <i>orderID</i> must be populated in the correct format. | Error |
| 2110 | Missing or Invalid <i>orderKeyDate</i> in <i>buyDetails</i> | When required, <i>orderKeyDate</i> must be populated in the correct format. | Error |
| 2111 | Missing or Invalid <i>side</i> in <i>buyDetails</i> | <i>side</i> must be populated in the correct format. | Error |
| 2112 | Missing or Invalid <i>firmDesignatedID</i> in <i>buyDetails</i> | When required, <i>firmDesignatedID</i> must be populated in the correct format. | Error |
| 2113 | Missing or Invalid <i>accountHolderType</i> in <i>buyDetails</i> | When required, <i>accountHolderType</i> must be one of the allowable values. | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|---|---|---------------|
| 2114 | Invalid combination of <i>firmDesignatedID</i> and <i>orderID</i> in <i>buyDetails</i> | When required, the combination of <i>firmDesignatedID</i> and <i>orderID</i> in <i>buyDetails</i> must be valid. See Table 49: Trade Side Details for more details. | Error |
| 2115 | Missing or Invalid <i>sellDetails</i> | If <i>sideDetailsInd</i> = SELL, <i>sellDetails</i> must be populated. If <i>sideDetailsInd</i> = BUY, <i>sellDetails</i> must not be populated. | Error |
| 2116 | Missing or Invalid <i>orderID</i> in <i>sellDetails</i> | When required, <i>orderID</i> must be populated in the correct format. | Error |
| 2117 | Missing or Invalid <i>orderKeyDate</i> in <i>sellDetails</i> | When required, <i>orderKeyDate</i> must be populated in the correct format. | Error |
| 2118 | Missing or Invalid <i>side</i> in <i>sellDetails</i> | <i>side</i> must be populated in the correct format. | Error |
| 2119 | Missing or Invalid <i>firmDesignatedID</i> in <i>sellDetails</i> | When required, <i>firmDesignatedID</i> must be populated in the correct format. | Error |
| 2120 | Missing or Invalid <i>accountHolderType</i> in <i>sellDetails</i> | When required, <i>accountHolderType</i> must be populated in the correct format. | Error |
| 2121 | Missing or Invalid <i>orderID</i> in <i>clientDetails</i> | <i>orderID</i> must be populated in the correct format. | Error |
| 2122 | Missing or Invalid <i>orderKeyDate</i> in <i>clientDetails</i> | <i>orderKeyDate</i> must be populated in the correct format. | Error |
| 2123 | Missing or Invalid <i>side</i> in <i>clientDetails</i> | <i>side</i> must be populated in the correct format. | Error |
| 2124 | Invalid <i>firmDesignatedID</i> in <i>clientDetails</i> | <i>firmDesignatedID</i> must be blank. | Error |
| 2125 | Invalid <i>accountHolderType</i> in <i>clientDetails</i> | <i>accountHolderType</i> must be blank. | Error |
| 2126 | Missing or Invalid <i>orderID</i> in <i>firmDetails</i> | When required, <i>orderID</i> must be populated and in the correct format. | Error |
| 2127 | Missing or Invalid <i>orderKeyDate</i> in <i>firmDetails</i> | When required, <i>orderKeyDate</i> must be populated in the correct format. | Error |
| 2128 | Missing or Invalid <i>side</i> in <i>firmDetails</i> | <i>side</i> must be populated and in the correct format. | Error |
| 2129 | Missing or Invalid <i>firmDesignatedID</i> in <i>firmDetails</i> | When required, <i>firmDesignatedID</i> must be in the correct format. | Error |
| 2130 | Missing or Invalid <i>accountHolderType</i> in <i>firmDetails</i> | When required, <i>accountHolderType</i> 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 | <i>actionType</i> 'COR', 'RPR' or 'DEL' is received for a <i>firmROEID</i> or an <i>errorROEID</i> that does not exist in CAT. | Error |
| 2139 | <i>eventTimestamp</i> is greater than the current date and time | The <i>eventTimestamp</i> is greater than system date. | Error |
| 2142 | Invalid combination of <i>aggregatedOrders</i> and <i>representativeInd</i> | The combination of <i>aggregatedOrders</i> and <i>representativeInd</i> must be valid. See Appendix C for more details on reporting representative and combined orders. | Error |
| 2143 | Invalid combination of <i>electronicDupFlag</i> and <i>manualFlag</i> | The combination of <i>electronicDupFlag</i> and <i>manualFlag</i> must be valid. See Section 3.2.2 for more details. | Error |
| 2144 | Invalid combination of <i>electronicTimestamp</i> and <i>manualFlag</i> | The combination of <i>electronicTimestamp</i> and <i>manualFlag</i> must be valid. See Section 3.2.2 for more details. | Error |
| 2145 | Invalid combination of <i>fulfillmentLinkType</i> and <i>firmDetails</i> | The combination of <i>fulfillmentLinkType</i> and <i>firmDetails</i> must be valid. See Appendix C for more details on reporting representative and combined orders. | Error |
| 2146 | Missing or Invalid <i>clientDetails</i> | <i>clientDetails</i> must be populated in the correct format. | Error |
| 2147 | Missing or Invalid <i>firmDetails</i> | <i>firmDetails</i> must be populated in the correct format. | Error |
| 2148 | Invalid combination of <i>firmDesignatedID</i> and <i>orderID</i> in <i>sellDetails</i> | When required, the combination of <i>firmDesignatedID</i> and <i>orderID</i> in <i>sellDetails</i> must be valid. See Table 49: Trade Side Details for more details. | Error |
| 2149 | <i>CATReporterIMID</i> and <i>senderIMID</i> must be assigned to the same firm | <i>CATReporterIMID</i> and <i>senderIMID</i> must be assigned to the same firm. | Error |
| 2150 | <i>CATReporterIMID</i> and <i>receiverIMID</i> must be assigned to the same firm | <i>CATReporterIMID</i> and <i>receiverIMID</i> 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 <i>quoteWantedInd</i> | When required, <i>quoteWantedInd</i> must be populated in one of the allowable values. | Error |
| 2156 | Invalid <i>reservedForFutureUse</i> | <i>reservedForFutureUse</i> must not be populated. | Error |
| 2157 | Invalid <i>quantity</i> in <i>buyDetails</i> | If populated, <i>quantity</i> in <i>buyDetails</i> must be in the correct format. | Error |
| 2158 | Invalid <i>originatingIMID</i> in <i>buyDetails</i> | 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 |
|------------|---|--|---------------|
| | <i>sellDetails</i> | | |
| 2160 | Invalid <i>originatingIMID</i> in <i>sellDetails</i> | 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 <i>orderID</i> in <i>aggregatedOrders</i> | When required, <i>orderID</i> in <i>aggregatedOrders</i> must be populated in the correct format. | Error |
| 2166 | Missing or Invalid <i>orderKeyDate</i> in <i>aggregatedOrders</i> | When required, <i>orderKeyDate</i> in <i>aggregatedOrders</i> must be populated in the correct format. | Error |
| 2167 | Invalid <i>quantity</i> in <i>aggregatedOrders</i> | If populated, <i>quantity</i> in <i>aggregatedOrders</i> must be in the correct format. | Error |
| 2168 | Invalid <i>originatingIMID</i> in <i>aggregatedOrders</i> | If populated, <i>originatingIMID</i> in <i>aggregatedOrders</i> must be in correct format. | Error |
| 2169 | Invalid combination of <i>reportingExceptionCode</i> and <i>tapeTradeID</i> | The combination of <i>reportingExceptionCode</i> and <i>tapeTradeID</i> must be valid. Refer to Section 4.11 Trade for more details. | Error |
| 2170 | Missing or Invalid <i>allocationKeyDate</i> | <i>allocationKeyDate</i> must be populated in the correct format. | Error |
| 2171 | Missing or Invalid <i>allocationID</i> | <i>allocationID</i> must be populated in the correct format. | Error |
| 2172 | Missing or Invalid <i>priorAllocationKeyDate</i> | When required, <i>priorAllocationKeyDate</i> must be populated in the correct format. | Error |
| 2173 | Missing or Invalid <i>priorAllocationID</i> | When required, <i>priorAllocationID</i> must be populated and must be in the correct format. | Error |
| 2175 | Missing or Invalid <i>institutionFlag</i> | <i>institutionFlag</i> must be populated with one of the allowable values | Error |
| 2176 | Missing or Invalid <i>tradeDate</i> | <i>tradeDate</i> must be populated in the correct format. | Error |
| 2177 | Missing or Invalid <i>settlementDate</i> | <i>settlementDate</i> must be populated in the correct format. | Error |
| 2178 | Missing or Invalid <i>allocationType</i> | <i>allocationType</i> must be populated with one of the allowable values | Error |
| 2179 | Missing or Invalid <i>DVPCustodianID</i> | When required, <i>DVPCustodianID</i> must be populated in the correct format. | Error |
| 2180 | Invalid <i>correspondentCRD</i> | If populated, <i>correspondentCRD</i> must be populated in the correct format. | Error |
| 2181 | Invalid <i>newOrderFDID</i> | If populated, <i>newOrderFDID</i> must be populated in the correct format. | Error |

| Error Code | Error Code Description | Explanation | Error/Warning |
|------------|--|--|---------------|
| 2182 | Invalid <i>allocationInstructionTime</i> | If populated, <i>allocationInstructionTime</i> must be in the correct format. | Error |
| 2184 | Invalid combination of <i>clearingFirm</i> and <i>reportingExceptionCode</i> | Combination of <i>clearingFirm</i> and <i>reportingExceptionCode</i> must be valid. | Error |
| 2185 | Invalid combination of counterparty and <i>reportingExceptionCode</i> | Combination of <i>counterparty</i> and <i>reportingExceptionCode</i> must be valid. | Error |
| 2186 | Missing or Invalid <i>solicitationFlag</i> | <i>solicitationFlag</i> must be populated with one of the allowable values | Error |
| 2187 | Invalid <i>RFQID</i> | If populated, <i>RFQID</i> must be in the correct format. | Error |
| 2188 | Missing or Invalid <i>unpricedInd</i> | <i>unpricedInd</i> must be populated with one of the allowable values | Error |
| 2189 | Invalid combination of <i>senderIMID</i> and <i>destination</i> or <i>receiverIMID</i> | On Order Route or New Quote events, <i>senderIMID</i> must not equal <i>destination</i> . On Order Accepted, Order Modified, and Quote Received events, <i>senderIMID</i> must not equal <i>receiverIMID</i> . | Error |
| 2190 | Invalid combination of <i>orderID</i> and <i>parentOrderID</i> or <i>priorOrderID</i> | If populated, the combination of <i>parentOrderID</i> and <i>parentOrderKeyDate</i> or <i>priorOrderID</i> and <i>priorOrderKeyDate</i> must not equal the combination of <i>orderID</i> and <i>orderKeyDate</i> . | Error |
| 2191 | Invalid combination of <i>orderID</i> and <i>orderID</i> in <i>aggregatedOrders</i> | If populated, the combination of <i>orderID</i> and <i>orderKeyDate</i> must not equal any combination of <i>orderID</i> and <i>orderKeyDate</i> within the <i>aggregatedOrders</i> field. | Error |
| 2192 | Invalid <i>triggerPrice</i> | If populated, <i>triggerPrice</i> must be in the correct format. | Error |
| 2200 | Missing or Invalid <i>legDetails</i> | <i>legDetails</i> must be populated in correct format. | Error |
| 2201 | Invalid <i>legRefID</i> in <i>legDetails</i> | When populated, <i>legRefID</i> must be in correct format. | Error |
| 2202 | Missing or Invalid <i>legRatioQuantity</i> in <i>legDetails</i> | <i>legRatioQuantity</i> must be populated in correct format. | Error |
| 2203 | Missing or Invalid <i>numberOfLegs</i> | <i>numberOfLegs</i> must be populated in correct format. | Error |
| 2204 | Invalid <i>pairedOrderID</i> | If populated, <i>pairedOrderID</i> must be in correct format. | Error |
| 2205 | Invalid <i>requestTimestamp</i> | If populated, <i>requestTimestamp</i> must be in correct format. | Error |
| 2206 | Missing or Invalid <i>multiLegInd</i> | <i>multiLegInd</i> must be populated with one of the allowable values. | Error |
| 2207 | Invalid <i>retiredFieldPosition</i> | <i>retiredFieldPosition</i> must not be populated. | Error |
| 2208 | Invalid <i>priorRoutedOrderID</i> | When required, <i>priorRoutedOrderID</i> must be populated in correct format. | Error |
| 2209 | Invalid combination of <i>routedOrderID</i> and <i>priorRoutedOrderID</i> | If populated, the <i>routedOrderID</i> and <i>priorRoutedOrderID</i> must not be equal. | Error |
| 2210 | Invalid <i>underlying</i> | 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 <i>netPrice</i> | If populated, <i>netPrice</i> 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 <i>symbol</i> and <i>optionID</i> fields in <i>legDetails</i> | In <i>legDetails</i> , the combination of <i>symbol</i> and <i>optionID</i> must be valid. | Error |
| 2214 | Invalid <i>openCloseIndicator</i> in <i>legDetails</i> | If populated, <i>openCloseIndicator</i> in <i>legDetails</i> must be populated with an allowable value. | Error |
| 2215 | Invalid <i>side</i> in <i>legDetails</i> | <i>side</i> in <i>legDetails</i> must be populated with an allowable value. | Error |
| 2216 | Missing or Invalid <i>priceType</i> | When required, <i>priceType</i> must be populated with an allowable value. | Error |
| 2217 | Missing or Invalid <i>destination</i> | When required <i>destination</i> must be populated with a valid IMID. | Error |
| 2218 | Missing or Invalid <i>occClearingMemberID</i> | When required, <i>occClearingMemberID</i> must be populated in the correct format. | Error |
| 2221 | Invalid combination of <i>symbol</i> and <i>openCloseIndicator</i> fields in <i>legDetails</i> | <i>openCloseIndicator</i> in <i>legDetails</i> must not be populated when <i>symbol</i> in <i>legDetails</i> 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 <i>orderID</i> and <i>firmDesignatedID</i> in <i>firmDetails</i> | <i>firmDesignatedID</i> in <i>firmDetails</i> must not be populated when <i>orderID</i> in <i>firmDetails</i> is populated or vice versa. | Error |
| 2224 | Invalid <i>symbol</i> in <i>legDetails</i> | <i>symbol</i> in <i>legDetails</i> not valid on the Event Date. <ul style="list-style-type: none"> For allocation events <i>tradeDate</i> is used. For all other events date portion of <i>eventTimestamp</i> is used. | Error |
| 2225 | Invalid <i>optionID</i> in <i>legDetails</i> | <i>optionID</i> in <i>legDetails</i> not valid on the Event Date. <ul style="list-style-type: none"> For allocation events <i>tradeDate</i> is used. For all other events date portion of <i>eventTimestamp</i> is used. | Error |
| 2226 | Invalid combination of <i>price</i> and <i>netPrice</i> | <i>price</i> must be blank or zero when <i>netPrice</i> is populated. | Error |
| 2227 | Invalid combination of <i>orderID</i> in <i>buyDetails</i> and <i>sellDetails</i> | When <u>both</u> <i>buyDetails.orderID</i> and <i>sellDetails.orderID</i> are provided, they must not be the same. | Error |
| 2228 | Invalid combination of <i>orderID</i> in <i>firmDetails</i> and <i>clientDetails</i> | <i>firmDetails.orderID</i> and <i>clientDetails.orderID</i> must not be the same. | Error |
| 2229 | Invalid <i>deskOrderID</i> | When provided, <i>deskOrderID</i> must be in correct format. | Error |
| 2230 | Invalid <i>priorDeskOrderID</i> | When provided, <i>priorDeskOrderID</i> must be in correct format and must not be equal to <i>deskOrderID</i> . | Error |
| 2231 | Invalid <i>representativeQuoteInd</i> | When provided, <i>representativeQuoteInd</i> must be populated in one of the allowable values. | Error |
| 2232 | Missing or Invalid | When required, <i>askAggregatedOrders</i> must be provided and in | Error |

| | | | |
|------|---|--|-------|
| | <i>askAggregatedOrders</i> | correct format. | |
| 2233 | Missing or Invalid <i>orderID</i> in <i>askAggregatedOrders</i> | <i>orderID</i> in <i>askAggregatedOrders</i> must be populated in the correct format. | Error |
| 2234 | Missing or Invalid <i>orderKeyDate</i> in <i>askAggregatedOrders</i> | <i>orderKeyDate</i> in <i>askAggregatedOrders</i> must be populated in the correct format. | Error |
| 2235 | Invalid <i>quantity</i> in <i>askAggregatedOrders</i> | If populated, <i>quantity</i> in <i>askAggregatedOrders</i> must be in the correct format. | Error |
| 2236 | Invalid <i>originatingIMID</i> in <i>askAggregatedOrders</i> | If populated, <i>originatingIMID</i> in <i>askAggregatedOrders</i> must be in correct format. | Error |
| 2237 | Invalid combination of <i>representativeQuoteInd</i> and <i>askAggregatedOrders</i> | The combination of <i>askAggregatedOrders</i> and <i>representativeQuoteInd</i> must be valid. | Error |
| 2238 | Missing or Invalid <i>bidAggregatedOrders</i> | When required, <i>bidAggregatedOrders</i> must be provided and in correct format | Error |
| 2239 | Missing or Invalid <i>orderID</i> in <i>bidAggregatedOrders</i> | When required, <i>orderID</i> in <i>bidAggregatedOrders</i> must be populated in the correct format. | Error |
| 2240 | Missing or Invalid <i>orderKeyDate</i> in <i>bidAggregatedOrders</i> | When required, <i>orderKeyDate</i> in <i>bidAggregatedOrders</i> must be populated in the correct format. | Error |
| 2241 | Invalid <i>quantity</i> in <i>bidAggregatedOrders</i> | 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 <i>representativeQuoteInd</i> and <i>bidAggregatedOrders</i> | The combination of <i>bidAggregatedOrders</i> and <i>representativeQuoteInd</i> must be valid. | Error |
| 2244 | Invalid combination of <i>firmDesignatedID</i> and <i>representativeQuoteInd</i> | The combination of <i>firmDesignatedID</i> and <i>representativeQuoteInd</i> must be valid. | Error |
| 2245 | Invalid combination of <i>firmDesignatedID</i> and <i>accountHolderType</i> | The combination of <i>firmDesignatedID</i> and <i>accountHolderType</i> must be valid. | Error |
| 2246 | Invalid combination of <i>unsolicitedInd</i> and <i>representativeQuoteInd</i> | The combination of <i>unsolicitedInd</i> and <i>representativeQuoteInd</i> must be valid. | Error |
| 2247 | Invalid combination of <i>quantity</i> and 'CASH' <i>handlingInstructions</i> | A quantity value of '0' must be reported for notional orders reported with the 'CASH' <i>handlingInstructions</i> value. | Error |
| 2248 | Retired Error Code | Error code has been retired and may no longer be used. | |
| 2249 | Missing or invalid <i>RFQFlag</i> | <i>RFQFlag</i> must be populated in the correct format. | Error |
| 2250 | Missing or invalid <i>quotePriceType</i> | 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. | |
| 2254 | Missing or Invalid | When provided, <i>askRelativePrice</i> must be populated with an | Error |

| | | | |
|------|---|--|-------|
| | <i>askRelativePrice</i> | allowable value. | |
| 2255 | Missing or Invalid <i>bidRelativePrice</i> | When provided, <i>bidRelativePrice</i> must be populated with an allowable value. | Error |
| 2256 | Missing or Invalid <i>validUntilDuration</i> | When provided, <i>validUntilDuration</i> must be populated with an allowable value.. | Error |
| 2257 | Invalid combination of <i>RFQFlag</i> and <i>RFQID</i> | The combination of <i>RFQFlag</i> and <i>RFQID</i> must be valid. | Error |
| 2258 | Invalid combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>buyDetails</i> | The combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>buyDetails</i> must be valid. | Error |
| 2259 | Invalid combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>sellDetails</i> | The combination of <i>capacity</i> and <i>firmDesignatedID</i> in <i>sellDetails</i> must be valid. | Error |
| 2260 | Missing or Invalid <i>BFMMFlag</i> | <i>BFMMFlag</i> must be populated with one of the allowable values. | Error |
| 2261 | Invalid combination of <i>BFMMFlag</i> and <i>accountHolderType</i> | The combination of <i>BFMMFlag</i> and <i>accountHolderType</i> must be valid. | Error |
| 2262 | Invalid combination of <i>BFMMFlag</i> and <i>side</i> | The combination of <i>BFMMFlag</i> and <i>side</i> must be valid. | Error |
| 2263 | Missing or Invalid <i>BFMMFlag</i> in <i>buyDetails</i> | When required, <i>BFMMFlag</i> must be populated in the correct format. | Error |
| 2264 | Missing or Invalid <i>BFMMFlag</i> in <i>sellDetails</i> | When required, <i>BFMMFlag</i> must be populated in the correct format. | Error |
| 2265 | Invalid combination of <i>BFMMFlag</i> and <i>accountHolderType</i> in <i>buyDetails</i> | The combination of <i>BFMMFlag</i> and <i>accountHolderType</i> in <i>buyDetails</i> must be valid. | Error |
| 2266 | Invalid combination of <i>BFMMFlag</i> and <i>side</i> in <i>buyDetails</i> | The combination of <i>BFMMFlag</i> and <i>side</i> in <i>buyDetails</i> must be valid. | Error |
| 2267 | Invalid combination of <i>BFMMFlag</i> and <i>accountHolderType</i> in <i>sellDetails</i> | The combination of <i>BFMMFlag</i> and <i>accountHolderType</i> in <i>sellDetails</i> must be valid. | Error |
| 2268 | Invalid combination of <i>BFMMFlag</i> and <i>side</i> in <i>sellDetails</i> | The combination of <i>BFMMFlag</i> and <i>side</i> in <i>sellDetails</i> must be valid. | Error |
| 2801 | | <i>Reserved</i> | |
| 2802 | | <i>Reserved</i> | |
| 2803 | | <i>Reserved</i> | |
| 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 [Section 2.6.1](#), 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 <i>firmROEID</i> 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 | <i>eventTimestamp</i> of a Secondary Event (as defined in Appendix F) is prior to the <i>eventTimestamp</i> of the related Primary Event (as defined in Appendix F). When comparing <i>eventTimestamp</i> , the Clock Drift allowance as specified in Appendix B must be considered. | Error |
| 3602 | Mismatched <i>eventTimestamp</i> on the Order/Modification/Trade/Fulfillment supplement event | <i>eventTimestamp</i> on the Order/Modification/Trade/Fulfillment supplement event did not match the <i>eventTimestamp</i> on the corresponding Order/Modification/Trade/Fulfillment event. Timestamp compared up to milliseconds. | Error |
| 3603 | Order Route event – <i>quoteID</i> not found | The IDQS Linkage Key in the Order Route event references a <i>quoteID</i> that does not exist in CAT because it was not reported or was rejected. | Error |
| 3701 | <i>firmDesignatedID</i> not found | <i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter. | Error |
| 3702 | <i>firmDesignatedID</i> not valid on Event Date | <i>firmDesignatedID</i> 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 <i>tradeDate</i> is used. | Error |
| 3703 | <i>firmDesignatedID</i> in <i>buyDetails</i> not found | <i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter. | Error |
| 3704 | <i>firmDesignatedID</i> in <i>buyDetails</i> not valid on Event Date | <i>firmDesignatedID</i> is not valid in CAIS for the CAT Reporter for the event date (i.e., the date portion of <i>eventTimestamp</i>). | Error |
| 3705 | <i>firmDesignatedID</i> in <i>sellDetails</i> not found | <i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter. | Error |
| 3706 | <i>firmDesignatedID</i> in <i>sellDetails</i> not valid on Event Date | <i>firmDesignatedID</i> is not valid in CAIS for the CAT Reporter on the event date (i.e., the date portion of <i>eventTimestamp</i>). | Error |
| 3707 | <i>firmDesignatedID</i> in <i>firmDetails</i> not found | <i>firmDesignatedID</i> does not exist in CAIS for the CAT Reporter. | Error |
| 3708 | <i>firmDesignatedID</i> in <i>firmDetails</i> not valid on Event Date | <i>firmDesignatedID</i> is not valid in CAIS on the event date (i.e., the date portion of <i>eventTimestamp</i>). | Error |
| 3709 | <i>newOrderFDID</i> not found | <i>correspondentCRD</i> is not populated or is equal to the CAT Reporter ID and <i>newOrderFDID</i> does not exist in CAIS for the CAT Reporter. | Error |
| 3710 | <i>newOrderFDID</i> not valid on <i>tradeDate</i> | <i>correspondentCRD</i> is not populated or is equal to the CAT Reporter ID and <i>newOrderFDID</i> is not valid in CAIS for the CAT Reporter on the <i>tradeDate</i> . | 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 | <i>marketCenterID</i> cannot be found | The <i>marketCenterID</i> reported on the Trade event did not match the Market Center ID on the TRF/ADF/ORF trade report. | Error |
| 4007 | <i>symbol</i> cannot be found | The <i>symbol</i> 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 | <i>CATReporterIMID</i> cannot be found | The <i>CATReporterIMID</i> 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 <i>tapeTradeID</i> 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 - <i>marketCenterID</i> 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 - <i>symbol</i> cannot be found | Named on a TRF/ADF/ORF Trade Report, but the <i>symbol</i> 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 <i>tapeTradeID</i> on the CAT Trade Event 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 |
| 5014 | Named - <i>CATReporterIMID</i> 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 <i>routedOrderID/routedQuoteID</i> cannot be found | 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 |
| 6005 | <i>senderIMID</i> 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 | <i>Symbol/optionID</i> did not match | A matching <i>routedOrderID/routedQuoteID</i> was identified in the exchange order or Display-Only Facility Equity BBO event; however, the <i>symbol/optionID</i> on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event did not match the corresponding <i>symbol/optionID</i> on the exchange order or Display-Only Facility Equity BBO event. | Error |
| 6009 | <i>session</i> did not match | A matching <i>routedOrderID/routedQuoteID</i> was identified on the exchange order or Display-Only Facility Equity BBO event; however, the <i>session</i> on the Order Route or Route Modified/Routed Quote event did not match the <i>session</i> on the exchange order or Display-Only Facility Equity BBO event. | Error |
| 6011 | Multiple fields did not match | A matching <i>routedOrderID/routedQuoteID</i> was identified on the exchange order or Display-Only Facility Equity BBO event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> , 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 <i>symbol/optionID</i> , <i>routingParty</i> 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 | <i>destination</i> did not match | A matching <i>routedOrderID/routedQuoteID</i> was identified on the exchange order or Display-Only Facility Equity BBO event; however, the <i>destination</i> 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 | <i>receiverIMID</i> 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 | <i>tapeTradeID</i> 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 | <i>marketCenterID</i> 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 | <i>side</i> in <i>buyDetails</i> 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 | <i>side</i> in <i>sellDetails</i> 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 <i>routedOrderID/routedQuoteID</i> 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 - <i>senderIMID</i> did not match | Named on an exchange order/Display-Only Facility Equity BBO event with a matching <i>routedOrderID/routedQuoteID</i> identified on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the <i>senderIMID</i> on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event did not match the <i>routingParty</i> reported on the corresponding exchange order/Display-Only Facility Equity BBO event. | Error |
| 7008 | Named – <i>symbol/optionID</i> did not match | Named on an exchange order/Display-Only Facility Equity BBO event with a matching <i>routedOrderID/routedQuoteID</i> identified on the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the <i>symbol/optionID</i> on the Order Route/Route Modified or Order Accepted/Order Modified/Routed Quote event did not match the <i>symbol/optionID</i> on the corresponding exchange order/Display-Only Facility Equity BBO event. | Error |
| 7010 | Named - <i>session</i> did not match | Named on an exchange order/Display-Only Facility Equity BBO event with a matching <i>routedOrderID/routedQuoteID</i> identified on the Order Route, Route Modified event or Routed Quote event; however, the <i>session</i> on the Order Route, Route Modified event or Routed Quote event did not match the <i>session</i> 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 <i>routedOrderID/routedQuoteID</i> identified in the Order Route/Route Modified/Routed Quote or Order Accepted/Order Modified event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> or a combination of fields reported on the Order Route/Route Modified or Order Accepted/Order Modified event did not match the <i>symbol/optionID</i> or <i>routingParty</i> 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 <i>routedOrderID/routedQuoteID</i> identified on the Order Route or Route Modified event; however, the <i>destination</i> 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 <i>routedOrderID</i> identified on the Order Accepted or Order Modified event; however, the <i>receiverIMID</i> 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 <i>routedOrderID/routedQuoteID</i> cannot be found | 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 |
| 8004 | Named - Matching <i>routedOrderID/receivedQuoteID</i> 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 | <i>senderIMID</i> did not match | A matching <i>routedOrderID</i> was identified in the Order Accepted/Order Modified event; however, the <i>senderIMID</i> on the Order Route/Route Modified event did not match the <i>senderIMID</i> on the Order Accepted/Order Modified event. | Error |
| 8006 | Named - <i>senderIMID</i> did not match | Named on an Order Route/Route Modified event, but the <i>senderIMID</i> on the Order Accepted/Order Modified event does not match the <i>senderIMID</i> reported on the corresponding Order Route/Route Modified event. | Error |
| 8007 | <i>destination</i> 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 – <i>destination</i> did not match | Named on an Order Route/Route Modified event, but the <i>receiverIMID</i> on the Order Accepted/Order Modified event does not match the <i>destination</i> reported on the corresponding Order Route/Route Modified event. | Error |
| 8009 | <i>symbol/optionID</i> 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 – <i>symbol/optionID</i> did not match | Named on an Order Route/Route Modified event with a matching <i>routedOrderID</i> identified in the Order Accepted/Order 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 |
| 8011 | Multiple fields did not match | A matching <i>routedOrderID</i> was identified in the Order Accepted/Order Modified event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> , <i>destination</i> , or a combination of fields on the Order Route/Route Modified event did not match the <i>symbol/optionID</i> , <i>senderIMID</i> , or <i>receiverIMID</i> 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 <i>routedOrderID</i> identified in the Order Accepted/Order Modified event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> , <i>receiverIMID</i> or a combination of fields on the Order Accepted/Order Modified event did not match the corresponding <i>symbol/optionID</i> , <i>senderIMID</i> , or <i>destination</i> 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 <i>routedOrderID/receivedQuoteID</i> cannot be found | 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 |
| 9004 | Named - Matching <i>routedOrderID/routedQuoteID</i> 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 | <i>senderIMID</i> 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 - <i>senderIMID</i> did not match | Named on an Order Accepted/Order Modified event but the <i>senderIMID</i> reported on the Order Route/Route Modified does not match to a corresponding <i>senderIMID</i> on the Order Accepted/Order Modified event. | Error |
| 9007 | <i>receiverIMID</i> 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 - <i>receiverIMID</i> did not match | Named on an Order Accepted/Order Modified event but the <i>destination</i> reported on the Order Route/Route Modified does not match to a corresponding <i>receiverIMID</i> on the Order Accepted/Order Modified event. | Error |
| 9009 | <i>symbol/optionID</i> 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 – <i>symbol/optionID</i> did not match | Named on an Order Accepted/Order Modified event with a matching <i>routedOrderID</i> identified in the Order Route/Route 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 |
| 9011 | Multiple fields did not match | A matching <i>routedOrderID</i> was identified in the Order Route/Route Modified event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> , <i>receiverIMID</i> , <i>receiverIMID</i> , or a combination of fields on the Order Accepted/Order Modified event did not match the corresponding <i>symbol/optionID</i> , <i>senderIMID</i> , or <i>destination</i> 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 <i>routedOrderID</i> identified in the Order Route/Route Modified event; however, the <i>symbol/optionID</i> , <i>senderIMID</i> , <i>destination</i> or a combination of fields on the Order Route/Route Modified event did not match the corresponding <i>symbol/optionID</i> , <i>senderIMID</i> , <i>receiverIMID</i> , <i>senderIMID</i> , <i>receiverIMID</i> 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 | <i>firmDesignatedID</i> or <i>newOrderFDID</i> 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 <i>timeInForce</i> 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 <i>aggregatedOrders</i> 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 | <p>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.</p> <p>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.</p> <p>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.</p> |
| CAT Trading Day | <p>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.</p> <p>Weekends or any day that all equities or options national securities exchanges are closed are not considered a CAT Trading Day.</p> <p>Trading Days that close early end 15 minutes after the Market Close.</p> |
| 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 | <p>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."</p> <p>See CAT FAQ M2 for more information on the prohibition on use of actual account</p> |

| | |
|-----------------------------------|---|
| | numbers. Refer to the CAT Industry Presentation 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 | <p>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.</p> <p>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.</p> <p>Primary events include: MENO, MEOA, MENQ, MEQR, MEOT, MEOF, MONO, MOOA, MONQ, MOQR, MOOF, MOOT, MEPA, MOPA, MLNO, MLOA, MLNQ, and MLQR.</p> |
| 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 | <p>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.</p> <p>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</p> |

| | |
|---|--|
| | <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> |
| <p>Simple Electronic Option Orders</p> | <p>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.</p> <p>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.</p> |
| <p>Trading Algorithm</p> | <p>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.</p> |
| <p>Trade Date</p> | <p>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.</p> <p>Weekends and holidays are not considered a Trade Date.</p> <p>An event occurring on a weekend or holiday will be assigned to the next Trade Date.</p> |

Appendix G: Data Dictionary

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

| Field Name | Data Type | Description |
|--------------------------|-----------|--|
| accountHolderType | Choice | <p>Represents one of the following:</p> <p>The type of beneficial owner of the account for which an order was received or originated, or to which the shares/contracts are allocated.</p> <p>The type of account against which a customer/client order is being filled.</p> <p>The type of account associated with the firmDesignatedID.</p> <p>The type of account that originates this quote.</p> <p>Allowed Values</p> <p>A Institutional Customer – An institutional account as defined in FINRA Rule 4512(c)</p> <p>E Employee Account – An employee or associated person of the Industry Member or an employee or associated person of affiliated group companies</p> <p>F Foreign – A non-broker-dealer foreign affiliate or non-reporting foreign broker-dealer</p> <p>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.</p> <p>O Market Making – See CAT FAQ C5 and CAT FAQ B68</p> <p>V Firm agency average price account</p> <p>P Other Proprietary</p> <p>X Error Account – Error account of the firm</p> |
| actionType | Choice | <p>Indicates whether the event is a new event, a correction, a repair or a record level deletion.</p> <p>Allowed Values</p> <p>NEW New Record</p> <p>COR Correction of events initiated by firms.</p> <p>RPR Repair of events for which a CAT error was provided in feedback</p> <p>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.</p> |
| affiliateFlag | Boolean | <p>Indicates if the order is being routed to an affiliate or received from an affiliate of the Industry Member.</p> <p>For definition of affiliate, refer to CAT FAQ C4.</p> <p>Allowed Values</p> <p>true Order is routed to or received from an affiliate</p> <p>false Order is routed to or received from a non-affiliate</p> |

| Field Name | Data Type | Description |
|----------------------------------|--------------------------|---|
| aggregatedOrders | Aggregated Orders | <p>When an Industry Member generates a New Order event to represent one or more customer/client orders, the <i>aggregatedOrders</i> field specifies the individual customer/client order(s) being represented.</p> <p>For each order being represented, the <i>orderId</i> and <i>orderKeyDate</i> must be provided. Quantity is required when a portion of the order's quantity is included in the aggregation.</p> <p>In instances when the <i>aggregatedOrders</i> 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 <i>aggregatedOrders</i> field.</p> <p>Refer to Appendix C for additional information on representative and combined order linkage requirements.</p> |
| allocationID | Text (64) | The internal allocation ID assigned to the allocation event by the Industry Member. The combination of <i>CATReporterIMID</i> , <i>allocationKeyDate</i> , <i>symbol</i> and <i>allocationID</i> 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 | <p>Indicates the type of allocation being made.</p> <p>Allowed Values for activity that is required to be reported to CAT:</p> <p>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)</p> <p>Refer to FAQ U26 for additional information.</p> <p>Allowed Values for activity that is being optionally reported to CAT</p> <p>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)</p> |
| 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 | <p>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.</p> <p>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.</p> <p>Allowed Values (Boolean)</p> <p>BNCH Benchmark-based Pricing Model</p> <p>M Midpoint Peg</p> <p>MOC Market on Close – The quote is priced at the closing last sale price of regular market hours.</p> <p>NAV Net Asset Value – The quote is priced using the Net Asset Value as a benchmark</p> <p>OFF Priced with specific offset</p> <p>OPM Other relative-based Pricing Model that may cause the quoted price to fluctuate multiple times throughout the day.</p> <p>OTH Any relative pricing model not covered in the existing allowed values</p> <p>PCT Priced with specific offset expressed in a percentage</p> <p>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</p> <p>SPRD Price communicated represents a price differential between two symbols</p> |
| askQty | Whole Quantity | Quantity being asked in a quote. |
| atsDisplayInd | Choice | <p>ATS only field. Indicates if the order is displayed outside of the ATS to subscribers only, or via publicly disseminated quotation data.</p> <p>Allowed Values</p> <p>S Order is displayed outside of the ATS to subscribers only</p> <p>A Order is displayed outside of the ATS to subscribers only, aggregated by price level on a timer basis</p> <p>Y Order is displayed outside of the ATS via public quotation</p> <p>N Order is not displayed outside of the ATS</p> |
| atsOrderType | Array | <p>ATS only field. Unique identifier representing the specific order type(s) offered by the ATS.</p> <p>ATSS will provide their order types and handling instructions to CAT by submitting data dictionaries.</p> <p>Multiple <i>atsOrderType</i> values may be populated.</p> |

| Field Name | Data Type | Description |
|----------------------------|--------------------------|--|
| BFMMFlag | Boolean | <p>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.</p> <p>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', 'P' or 'X'.</p> <p>Allowed Values</p> <p>true Order is relying on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO</p> <p>false Order is not relying on the bona fide Market Making exception under Rule 203(b)(2)(iii) of Regulation SHO</p> |
| bidAggregatedOrders | Aggregated Order Details | The <i>orderID</i> of each Customer/Client order being aggregated into a quote on the bid side. |
| bidPrice | Price | Price being bid in a quote. |
| bidRelativePrice | Name/Value Pairs | <p>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.</p> <p>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.</p> <p>Allowed Values (Boolean)</p> <p>BNCH Benchmark-based Pricing Model</p> <p>M Midpoint Peg</p> <p>MOC Market on Close – The quote is priced at the closing last sale price of regular market hours.</p> <p>NAV Net Asset Value – The quote is priced using the Net Asset Value as a benchmark</p> <p>OFF Priced with specific offset</p> <p>OPM Other relative-based Pricing Model that may cause the quoted price to fluctuate multiple times throughout the day.</p> <p>OTH Any relative pricing model not covered in the existing allowed values</p> <p>PCT Priced with specific offset expressed in a percentage</p> <p>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</p> <p>SPRD Price communicated represents a price differential between two symbols</p> |
| bidQty | Whole Quantity | Quantity being bid in a quote. |

| Field Name | Data Type | Description |
|-------------------------|--------------------------|---|
| buyDetails | Trade Side Details | <p>Captures the Order Key and additional information for the Order associated with the buy side of a Trade Event.</p> <p>This field is in the format of Trade Side Details, a compound data type that consists of a list of fields (see Section 2.5 Data Types). 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 Section 4.11.1 for a list of fields.</p> <p>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.</p> |
| cancelQty | Real Quantity | <p>The quantity being cancelled.</p> <p>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.</p> |
| cancelFlag | Boolean | <p>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 E25, CAT FAQ E29 and CAT FAQ E30 for additional information.</p> <p>Allowed Values</p> <p>true trade event was cancelled upon rejection by the TRF/ADF/ORF; or fulfillment Was cancelled.</p> <p>false trade event was not cancelled or cancellation was reported to the TRF/ADF/ORF; or fulfillment event was not cancelled.</p> |
| cancelTimestamp | Timestamp | The time at which a trade or fulfillment was cancelled. Must be populated when <i>cancelFlag</i> is 'true'. |
| capacity | Choice | <p>Specifies the capacity in which the Industry Member acted.</p> <p>Allowed Values</p> <p>A Agency</p> <p>P Principal</p> <p>R Riskless Principal</p> |
| 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 | <p>Specifies the Order Key and additional information for a Customer/Client Order for which a fulfillment event is associated.</p> <p>This field is in the format of Trade Side Details, a multi-dimensional array that consists of a list of fields (see Section 2.5 Data Types). 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 Section 4.12.1 for a List of fields.</p> |
| counterparty | Industry Member ID | The counterparty to the trade. |

| Field Name | Data Type | Description |
|------------------------|--------------------------------|--|
| custDsplntrFlag | Boolean | <p>Indicates if a customer/client has instructed that a limit order must not be displayed or that a block size order must be displayed contrary to what is required by SEC Rule 604 or FINRA's Customer Limit Order Display Rule.</p> <p>Allowed Values</p> <p>true Customer/client has instructed that a limit order should not be displayed or that a block size order be displayed.</p> <p>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.</p> |
| deptType | Choice | <p>Represents the internal department, unit or desk originating or accepting the order.</p> <p>Allowed Values</p> <p>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.</p> <p>ATS Alternative Trading System – A trading system that meets the definition of “Alternative Trading System” under Regulation ATS.</p> <p>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.</p> <p>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.</p> <p>T 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.</p> <p>O 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.</p> |
| deskOrderID | Text (64) | Internal identifier assigned to an internal route event by the Department or desk. |
| destination | Industry Member ID/Exchange ID | <p>The SRO-assigned identifier of the Industry Member or Exchange to which an order was routed.</p> <p>When <i>destinationType</i> is ‘N’ or ‘S’, this field is not required to be populated.</p> <p>When <i>destinationType</i> is F or O, this field is populated with the IMID of an Industry Member.</p> <p>When <i>destinationType</i> is ‘D’, this field is populated with one of the following:</p> <p>Allowed Values for a Display-only Facility Destination</p> <p>ADF FINRA Alternative Display Facility</p> |

| Field Name | Data Type | Description |
|--|-----------|--|
| destination <i>(continued)</i> | | <p>When <i>destinationType</i> is E, this field is populated with one of the following:</p> <p>Allowed Values for an Exchange Destination</p> <p>AMER NYSE American Equities AMEROP NYSE American Options ARCA NYSE ARCA Equities ARCAOP NYSE ARCA Options BOX BOX Options Exchange BSTX Boston Security Token Exchange BX Nasdaq BX Equities BYX Cboe BYX Exchange BZX Cboe BZX Equities BZXOP Cboe BZX Options C2 Cboe C2 Options CBOE Cboe Exchange CHX NYSE Texas 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</p> |

| Field Name | Data Type | Description |
|--------------------------|----------------|---|
| destinationType | Choice | <p>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.</p> <p>Not required for quotes routed to OTC Link ATS.</p> <p>Allowed Values for Quote Events</p> <p>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</p> <p>Allowed Values for Order Events</p> <p>F Industry Members E Exchange N Foreign – Not applicable to options events O OTC Equity symbol in a foreign security was sent to another Industry Member, who may route the order to a foreign market for execution.</p> |
| 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 | <p>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>.</p> <p>On New Quote and Quote Received events, indicates when the quote event maintains the same <i>routedQuoteID</i>.</p> <p>Allowed Values</p> <p>true Event contains a duplicated <i>routedOrderID</i> or <i>routedQuoteID</i> false Event does not contain a duplicated <i>routedOrderID</i> or <i>routedQuoteID</i></p> |
| DVPCustodianID | Text (40) | <p>Applicable to DVP/RVP transactions.</p> <p>If the custodian is a US broker-dealer, this field must be populated with the clearing number of the custodian.</p> <p>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.</p> <p>If there is no clearing number or DTC number, this field must be populated with a value of 'FOREIGN'.</p> <p>Refer to CAT FAQ U19 for additional guidance.</p> |
| electronicDupFlag | Boolean | <p>Indicates whether the event is a duplicative electronic message of a manual event. Must be present if true.</p> <p>Allowed Values</p> <p>true Event is a duplicative electronic message false Event is not a duplicative electronic message</p> |

| 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 CAT FAQ U9 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 <i>exchOriginCode</i> with MM. Refer to CAT FAQ E28 for additional information. |
| fillKeyDate | Timestamp | The date and time the <i>fulfillmentID</i> 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 FDID guidance and FDID FAQs . 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 Section 2.5 Data Types). <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 Section 4.12.1 for list of fields. This field is applicable on an Order Fulfillment event if there is only one <i>orderID</i> associated with the firm side of the fulfillment. If there is more than one <i>orderID</i> associated with the firm side, the <i>firmDetails</i> 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 ROE Identifier> The <i>firmROEID</i> must be unique for the Event Date and CAT Reporter IMID. |
| fulfillmentID | Text (64) | The identifier for the order fulfillment. The combination of <i>CATReporterIMID</i> , <i>fillKeyDate</i> , <i>symbol</i> and <i>fulfillmentID</i> must be unique per Order Fulfillment event. |

| Field Name | Data Type | Description |
|--|------------------|--|
| fulfillmentLinkType | Choice | <p>Specifies the type of the fulfillment. Refer to Appendix C for additional information on Representative Order linkage requirements.</p> <p>Allowed Values for Equity Events</p> <p>FOR Fulfillment on an order routed to a foreign destination, no linkage required</p> <p>Y Representative Order, linkage required</p> <p>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.</p> <p>YP Fill from pre-existing Principal order or pre-existing quote, linkage required</p> <p>YS Representative Order, linkage required, details provided in a supplement event</p> <p>Allowed Values for Option Events</p> <p>O Options Order Fulfillment</p> <p>OS Combined Options Order, linkage required, details provided in a supplement event</p> <p>Allowed Values for Multi-Leg Events</p> <p>OML Multi-Leg Options Order Fulfillment</p> |
| handlingInstructions handlingInstructions (continued) | Name/Value Pairs | <p>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.</p> <p>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.</p> <p>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.</p> <p>For example, <i>handlingInstructions</i> are represented as follows in JSON:</p> <pre>"handlingInstructions":{ "AOK": true, "DISP": 10.00, "TMO": "20190419T092316.123456789", "AucResp": "AuctionID456" "DLVT": ["MM1", "MM2", "MM3"] }</pre> <p>In CSV, <i>handlingInstructions</i> is represented as: AOK DISP=10.00 TMO=20190419T092316.123456789 AucResp=AuctionID456 DLVT=MM1@MM2@MM3</p> <p>In accordance with the November 2, 2023 SEC Exemptive Relief Order (Release No. 34-98848), certain special handling instructions set by</p> |

| Field Name | Data Type | Description |
|---|--|---|
| handlingInstructions <i>(continued)</i> | | Industry Members at exchanges via exchange ports are not required to be reported to CAT. ¹⁸ 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, which include: 'ATT', 'DNI', 'DNR', 'DNRT', 'RLO', and 'STP', and the associated descriptions in the below table are marked with an asterisk (*). 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, 2023 Exemptive Order (Release No. 34-98848). |
| | | Allowed 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 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 FAQ E32) or AucResp (see FAQ K3). |
| | | AON All or None |
| | | APCM Auction Price Cap Market – Indicates the contra party of a paired option order (see FAQ K20) is willing to match any price improvement. Also, see FAQ K26 . |
| | | 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 <i>handlingInstructions</i> values: 'LOO', 'LOC', 'MOO', 'MOC', 'IO),. Must not be used for paired orders (see FAQ K20 for definition), or in combination with 'AucResp' <i>handlingInstructions</i> value. (see FAQ K3). |
| | | ATT Attributable – Order is routed to an exchange or ATS with instructions that the order is attributable (*). |
| | BIN Buy-In – An order originated pursuant to SEC or SRO rules | |

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 | Description |
|---|--|--|
| handlingInstructions <i>(continued)</i> | | (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 |
| | CMPX | 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. |
| 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. | |
| FOK | Fill or Kill – Indicates the order is intended for immediate | |

| Field Name | Data Type | Description |
|---|--|---|
| handlingInstructions <i>(continued)</i> | | execution in its entirety, and if not executed in its entirety, the 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. |
| | IO | Imbalance Only |
| | LOC | 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. |
| | M | 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. |
| | MOO | 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 |
| | OPO | 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. |
| | P | Market Peg |
| | 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. |
| PCTPX | Indicates that the limit price provided in the <i>price</i> field is specified as a percentage of a benchmark price. For example, price=7.25 indicates that the limit price of the order is 7.25% of | |

| Field Name | Data Type | Description |
|---|--|---|
| handlingInstructions <i>(continued)</i> | | 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 |
| | | UNP Unpriced Quote on an Order Driven Market – Applicable to orders received by Global OTC. |
| | | 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 |
|-------------------------------------|--|---|
| handlingInstructions (continued) | | Allowed Values (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'. <i>Data Type: Alphanumeric (40)</i> |
| | | APCL Auction Price Cap Limit – Indicates the price at which the contra party of a paired option order (see FAQ K20) is willing to match price improvement (e.g., APCL=14.75). Also, see FAQ K26 . <i>Data Type: Price</i> |
| | | 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. <i>Data Type: Price</i> |
| | | 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). <i>Data Type: Price</i> |
| | | 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). <i>Data Type: Real Quantity</i> |
| | | 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). <i>Data Type: Text 16</i> |
| | | 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). <i>Data Type: Array</i> |
| | | STOP Stop Price – Requires a Numeric value representing the stop price (e.g., STOP=17.95). <i>Data Type: Price</i> |
| | | 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. <i>Data Type: Price</i> |
| | | 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. <i>Data Type: Whole Quantity</i> |
| | 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) | |

| Field Name | Data Type | Description |
|-------------------------|---------------|---|
| | | order) - requires a Timestamp value. <i>Data Type: Timestamp</i> |
| 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 Section 2.5 Data Types). The <i>legDetails</i> field is used in all Multi-Leg order events to capture the leg level details of each event. Refer to Section 5.2 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 <i>legDetails</i> . |
| 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 |

| Field Name | Data Type | Description |
|--------------------------------------|-----------|--|
| manualOrderID | Text (64) | In cases when a duplicative electronic message is reported, the <i>manualOrderID</i> is the <i>orderID</i> of the related manual order. |
| manualOrderKeyDate | Timestamp | In cases when a duplicative electronic message is reported, the <i>manualOrderKeyDate</i> is the <i>orderKeyDate</i> of the related manual order. |
| marketCenterID | Choice | <p>For equities MEOT events, the national securities exchange or transaction reporting system operated by a registered securities association where the trade was reported.</p> <p>For options MOOT events, the options exchange where the trade occurred.</p> <p>Allowed Values</p> <p>FINRA Transaction Reporting Systems</p> <p>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</p> <p>National Securities Exchanges</p> <p>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 Texas N New York Stock Exchange P NYSE Arca Q The Nasdaq Stock Market U Members Exchange V Investors Exchange W Cboe Stock Exchange X Nasdaq PSX Y Cboe BYX Exchange Z Cboe BZX Exchange</p> <p>Options Exchanges</p> <p>ARCAOP NYSE ARCA Options AMEROP NYSE American Options BOX BOX Options Exchange BZXOP Cboe BZX Options Exchange</p> |
| marketCenterID (continued) | | |

| Field Name | Data Type | Description |
|----------------------|----------------|---|
| | | C2 Cboe C2 Options CBOE Cboe Exchange 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 | Indicates the minimum quantity allowed to be executed in a single transaction. The <i>minQty</i> is required to be populated when it is applicable to the order. This means that it is only required to be reported when a customer or a routing firm explicitly specifies a minimum quantity. |
| mpStatusCode | Choice | Market Participant Status Code- indicates if the market maker's quote was open or closed. Allowed Values O Open C Close |
| multiLegInd | Boolean | Indicates when the immediately preceding event in the order life cycle is a Multi-Leg order event. Refer to Section 5.2.2 for additional guidance. Allowed Values true The immediately preceding event in the order life cycle is a Multi-Leg order event false The immediately preceding event in the order life cycle is not a Multi-Leg order event |
| 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 <i>nbboTimestamp</i> must be blank. |
| nbboTimestamp | Timestamp | ATS only field. The date and time at which the NBBO was referenced. |

| Field Name | Data Type | Description |
|----------------------------|----------------|---|
| 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. |
| 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. |

| Field Name | Data Type | Description |
|---------------------------|-------------------|--|
| 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 <i>orderKeyDate</i> 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 <i>pairedOrderID</i> 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. |
| parentOrderKeyDate | Timestamp | The <i>parentOrderKeyDate</i> is the <i>orderKeyDate</i> 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. |

| Field Name | Data Type | Description |
|-------------------------------|---------------|--|
| priceType | Choice | <p>On multi-leg order events, indicates how the net price was represented in the price field.</p> <p>Allowed Values</p> <p>PU “Per Unit” price representing the leg ratios as specified in the legDetails block</p> <p>TC “Total Cash” amount to settle the full quantity of all legs (i.e., inclusive of the 100 multiplier for option legs)</p> <p>TS “Total Strategy” price for the full quantity of all legs</p> |
| 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. |
| priorDeskOrderID | Text (64) | When a new <i>deskOrderID</i> has been assigned on an internal route modified event, this is the <i>deskOrderID</i> of the event being modified. |
| priorFulfillmentID | Text (64) | In cases when a new <i>fulfillmentID</i> is assigned, the <i>priorFulfillmentID</i> is the <i>fulfillmentID</i> that is being amended. |
| priorFillKeyDate | Timestamp | In cases when a new <i>fulfillmentID</i> is assigned, the <i>priorFillKeyDate</i> is the <i>fillKeyDate</i> of the fulfillment that is being amended. |
| priorOrderID | Text (64) | In cases when an event assigns a new <i>orderID</i> , the <i>priorOrderID</i> is the <i>orderID</i> that is being replaced. |
| priorOrderKeyDate | Timestamp | In cases when an event assigns a new <i>orderID</i> , the <i>priorOrderKeyDate</i> is the <i>orderKeyDate</i> of the order whose <i>orderID</i> is being replaced. |
| priorRoutedOrderID | Text (64) | In cases where a Route Modified event assigns a new <i>routedOrderID</i> , the <i>priorRoutedOrderID</i> is the <i>routedOrderID</i> 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 <i>quoteID</i> , the <i>priorQuoteKeyDate</i> is the <i>quoteKeyDate</i> of the order whose <i>quoteID</i> is being replaced. |
| quantity | Real Quantity | <p>The quantity of the order.</p> <p>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 CAT FAQ K22 for additional information.</p> <p>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> value. See CAT FAQ D10 for additional information.</p> |
| quoteID | Text (64) | <p>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.</p> <p>On Order Route events, the <i>quoteID</i> of the related MEQR event reported by the IDQS.</p> |
| quoteKeyDate | Timestamp | <p>The date and time the <i>quoteID</i> was assigned.</p> <p>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.</p> |

| Field Name | Data Type | Description |
|--|--------------------|--|
| quotePriceType | Choice | <p>On multi-leg quote events, indicates how the net price was represented in the price field.</p> <p>Allowed Values</p> <p>PU "Per Unit" price representing the leg ratios as specified in the legDetails block</p> <p>TC "Total Cash" amount to settle the full quantity of all legs (e.g., inclusive of the 100 multiplier for option legs)</p> <p>TS "Total Strategy" price for the full quantity of all legs</p> |
| quoteRejectedFlag | Boolean | <p>Indicates if the quote was not accepted by the destination.</p> <p>Allowed Values</p> <p>true</p> <p>false</p> |
| quoteWantedInd | Choice | <p>Indicates if the quote message received by an IDQS is a request for a bid or an ask.</p> <p>Allowed Values</p> <p>A Ask Wanted</p> <p>B Bid Wanted</p> |
| receivedQuoteID | Text (64) | <p>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.</p> |
| receiverIMID | Industry Member ID | <p>The IMID of the Industry Member receiving the order or quote. <i>receiverIMID</i> must match the <i>destination</i> 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 <i>routingParty</i> on the Order Route event reported by the exchange.</p> |
| receivingDeskType receivingDeskType <i>(continued)</i> | Choice | <p>Indicates the type of desk or department within the firm that received the order. More granular than the field <i>deptType</i>. Only required when the destination of an internal route is a desk.</p> <p>Allowed Values</p> <p>A Agency</p> <p>AR Arbitrage</p> <p>B Block Trading</p> <p>C Convertible Desk</p> <p>CR Central Risk Books</p> <p>D Derivatives</p> <p>EC Equity Capital Markets</p> <p>FB Floor Broker</p> <p>IN International</p> <p>IS Institutional</p> <p>O Other</p> <p>PF Preferred Trading</p> |

| Field Name | Data Type | Description |
|--|-----------|--|
| | | PR Proprietary PT Program Trading S Sales SW Swaps T Trading Desk TR Treasury |
| reportingExceptionCode | Choice | <p>Indicates the reason that a unique identifier (e.g., Branch Sequence Number, Compliance ID) was not supplied to a transaction reporting system.</p> <p>Allowed Values</p> <p>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.</p> <p>F Reported on Form T pursuant to FINRA Trade Reporting Rules.</p> <p>N Trade was executed by a non-FINRA member and reported to the TRF by the FINRA member counterparty.</p> <p>P Intra-firm order where there is no change in beneficial ownership.</p> |
| representativeInd representativeInd <i>(continued)</i> | Choice | <p>Indicates the type of representative order being reported and whether linkage is required. Refer to Appendix C for additional information on Representative Order linkage requirements.</p> <p>Allowed Values for Equities</p> <p>Y Representative order, linkage required</p> <p>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.</p> <p>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 by the SEC on November 2, 2023.</p> <p>YS Representative order, linkage required; details in supplement event</p> <p>N Not a representative order, linkage is not applicable</p> <p>Allowed Values for Simple Options</p> <p>O Options Combined Order</p> <p>OS Options Combined Order; details in supplement event</p> <p>N Not a combined order, linkage is not applicable</p> <p>Allowed Values for Multi-Leg/Complex Options</p> <p>OML Multi-Leg Options Combined Order</p> <p>OMS Multi-Leg Options Combined Order; details in supplement event</p> <p>N Not a combined order, linkage is not applicable</p> |

| Field Name | Data Type | Description |
|-------------------------------|-----------|--|
| 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. |
| 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. |

| Field Name | Data Type | Description |
|-------------------------------|------------------------------------|---|
| routeRejectedFlag | Boolean | <p>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.</p> <p>Allowed Values</p> <p>true Rejected or abandoned false Not rejected</p> |
| sellDetails | Trade Side Details | <p>Captures the Order Key and additional information for the Order associated with the sell side of a Trade Event.</p> <p>This field is in the format of Trade Side Details, a compound data type that consists of a list of fields (see Section 2.5 Data Types). 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 Section 4.11.1 for a list of fields.</p> <p>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.</p> |
| senderIMID | Industry Member ID/ Exchange ID | <p>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.</p> <p>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.</p> <p>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.</p> <p>When <i>senderType</i> is 'N' or 'S', this field is not required to be populated.</p> <p>Allowed Values for Exchange ID (when <i>senderType</i> = E)</p> <p>AMER NYSE American Equities AMEROP NYSE American Options ARCA NYSE ARCA Equities ARCAOP NYSE ARCA Options BOX BOX Options Exchange BSTX Boston Security Token BX Nasdaq BX Equities BYX Cboe BYX Exchange BZX Cboe BZX Equities BZXOP Cboe BZX Options C2 Cboe C2 Options CBOE Cboe Exchange CHX NYSE Texas EDGA Cboe EDGA Exchange EDGX Cboe EDGX Equities EDGXOP Cboe EDGX Options EMLD MIAX Emerald</p> |
| senderIMID (continued) | | |

| Field Name | Data Type | Description |
|-----------------------|-------------------|--|
| | | 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 from where a routed quote or order originated. Allowed Values for Quote Events F Industry Members N Foreign S Quote is being routed from a U.S. non-CAT reporting entity Allowed Values for Order Events E Exchange F Industry Member O OTC Equity symbol in a foreign security was sent by another Industry Member, who may not have a CAT reporting obligation |
| seqNum | Alphanumeric (40) | ATS only field. The sequence number of the event, used to sequence events when multiple events have the same timestamp. The sequence number is required to be an increasing value for a CAT Reporter, Event Date, and symbol, such that it can be used to sequence events having the same event timestamp in chronological order. Refer to Section 2.3.1 Timestamps and Section 3.1.3 Sequence Number . |
| 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 Order Routing Field Mapping document published on the IM Technical Specifications page of the CAT Public Website. |
| settlementDate | Date | The settlement date of the securities being allocated |

| Field Name | Data Type | Description | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----------|--|---------------|--|--------------|--|------|--------|--|--------|------------|----------|-----|--------------|-------------|-----------|-----------|---------------|--|-----------|------------|--|-----------|-------------------|
| side | Choice | <p>Side of the event. Allowable side values are based on the corresponding Event Type and side as shown below.</p> <table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Product Type</th> </tr> <tr> <th>Side</th> <th colspan="2">Equity</th> <th>Option</th> </tr> </thead> <tbody> <tr> <td>Buy</td> <td>B</td> <td>Buy</td> <td>B Buy</td> </tr> <tr> <td>Sell</td> <td>SL</td> <td>Sell Long</td> <td rowspan="3">S Sell</td> </tr> <tr> <td></td> <td>SS</td> <td>Short Sale</td> </tr> <tr> <td></td> <td>SX</td> <td>Short Sale Exempt</td> </tr> </tbody> </table> | | | Product Type | | Side | Equity | | Option | Buy | B | Buy | B Buy | Sell | SL | Sell Long | S Sell | | SS | Short Sale | | SX | Short Sale Exempt |
| | | Product Type | | | | | | | | | | | | | | | | | | | | | | |
| Side | Equity | | Option | | | | | | | | | | | | | | | | | | | | | |
| Buy | B | Buy | B Buy | | | | | | | | | | | | | | | | | | | | | |
| Sell | SL | Sell Long | S Sell | | | | | | | | | | | | | | | | | | | | | |
| | SS | Short Sale | | | | | | | | | | | | | | | | | | | | | | |
| | SX | Short Sale Exempt | | | | | | | | | | | | | | | | | | | | | | |
| sideDetailsInd | Choice | <p>Identifies if a Trade event is one sided, and which side of the trade the Industry Member is populating in the Trade Side Details.</p> <p>Allowed Values</p> <p>BUY The Trade event is one sided, and the reporter is on the Buy side of the trade. Only the <i>buyDetails</i> are populated.</p> <p>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.</p> <p>NA Not Applicable – the Trade event is not one sided.</p> | | | | | | | | | | | | | | | | | | | | | | |
| solicitationFlag | Boolean | <p>Indicates if the order was originated in response to an RFQ or other solicitation process.</p> <p>This field is not used to indicate if a registered representative of the firm solicited a customer/client order.</p> <p>Allowed Values</p> <p>true Event was received or originated as the result of a response to an RFQ or other solicitation process.</p> <p>false Event was not received or originated as the result of a response to an RFQ or other solicitation process.</p> | | | | | | | | | | | | | | | | | | | | | | |
| symbol | Symbol | <p>The symbol of the stock in the symbology of the primary listing exchange or FINRA OTC symbology for OTC Equity Securities.</p> | | | | | | | | | | | | | | | | | | | | | | |
| tapeTradeID | Text (40) | <p>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:</p> <p>Compliance ID in ORF and ADF Branch Sequence Number in FINRA/NQ TRF FINRA Compliance Number in FINRA/NYSE TRF</p> <p>Must be unique per combination of Event Date, <i>CATReporterIMID</i>, <i>marketCenterID</i> and <i>symbol</i>.</p> <p>The <i>tapeTradeID</i> may link to either the reporting side or the contra-side of the media tape report.</p> | | | | | | | | | | | | | | | | | | | | | | |

| Field Name | Data Type | Description | | | | | | | | | | | | |
|---------------------|--|--|----|------|-----|---|--------------------------------|--------------|---|--|----------------------------|---|----------------------------|-----|
| timeInForce | Name/Value Pairs | <p>Specifies the Time in Force for an order.</p> <p>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.</p> <p>The following examples demonstrate how to represent in JSON and CSV:</p> <table border="0"> <thead> <tr> <th>Ex</th> <th>JSON</th> <th>CSV</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>"timeInForce":{"DAY":20190528}</td> <td>DAY=20190528</td> </tr> <tr> <td>2</td> <td>"timeInForce":{"GTT":"20190528T160000.000000"}</td> <td>GTT=20190528T160000.000000</td> </tr> <tr> <td>3</td> <td>"timeInForce":{"IOC":true}</td> <td>IOC</td> </tr> </tbody> </table> <p>Allowed Values (Boolean)</p> <p>GTC Good till Cancelled</p> <p>GTM Good this Month – Valid until last business day of the month in which the order originated.</p> <p>IOC Immediate or Cancel</p> <p>IOR Immediate or Return – Only applicable to options floor brokers</p> <p>Allowed Values (Non-Boolean)</p> <p>DAY Day Order – Requires the expiration date which must be equal to Event Date or Event Date plus one Trading Day. <i>Data Type: Date</i></p> <p>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. <i>Data Type: Unsigned</i></p> <p>GTD Good till Date – Requires the expiration date. <i>Data Type: Date</i></p> <p>GTT Good till Time – Requires the expiration timestamp. <i>Data Type: Timestamp</i></p> <p>GTX Good till Crossing – Requires the expiration date which must be equal to Event Date or Event Date plus one Trading Day. <i>Data Type: Date</i></p> | Ex | JSON | CSV | 1 | "timeInForce":{"DAY":20190528} | DAY=20190528 | 2 | "timeInForce":{"GTT":"20190528T160000.000000"} | GTT=20190528T160000.000000 | 3 | "timeInForce":{"IOC":true} | IOC |
| Ex | JSON | CSV | | | | | | | | | | | | |
| 1 | "timeInForce":{"DAY":20190528} | DAY=20190528 | | | | | | | | | | | | |
| 2 | "timeInForce":{"GTT":"20190528T160000.000000"} | GTT=20190528T160000.000000 | | | | | | | | | | | | |
| 3 | "timeInForce":{"IOC":true} | IOC | | | | | | | | | | | | |
| tradeDate | Date | The trade date of the securities being allocated. Used to validate the <i>symbol</i> or <i>optionID</i> field on Allocation events. | | | | | | | | | | | | |
| tradeID | 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. | | | | | | | | | | | | |

| Field Name | Data Type | Description | |
|---------------------|-----------|--|---|
| type (continued) | | 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 | |
| | | Simple 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 Option Order Modification Request |
| | | MOOJ Option Order Adjusted | |
| | | MOOC Option Order Cancelled | |
| | | MONQ New Option Quote | |
| | | MORQ Option Routed Quote | |
| | | MOQR Option Received Quote | |
| | | 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 | |

| Field Name | Data Type | Description |
|-----------------------|-----------|---|
| | | 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 symbol of the underlying instrument for one or more of the option legs. See Section 0 for guidance. |
| unsolicitedInd | Choice | Indicates when the quote is unsolicited. Allowed Values |
| | | U Unsolicited Bid and Ask A Unsolicited Ask B Unsolicited Bid N Not Unsolicited |

| Field Name | Data Type | Description |
|---------------------------|---------------|--|
| unpricedInd | Boolean | <p>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.</p> <p>Allowed Values</p> <p>true Quote is unpriced false Quote is not unpriced</p> |
| validUntilDuration | Real Quantity | <p>RFQ only field. The duration, expressed in seconds, from which the time an electronic RFQ response was communicated is valid until.</p> <p><i>validUntilDuration</i> is an optional field.</p> |
| workingPrice | Price | <p>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.</p> <p>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>.</p> <p>If an ATS does not maintain a separate working price within its matching engine, this field would not be applicable.</p> |

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 <u>file for which the filename is duplicated is rejected</u> . |
| | Filename elements validations including submitter relationship are formatted as expected | | | Feedback File is returned indicating the <u>Data File is rejected</u> . |
| Data Ingestion | Unreadable Data File | | | Meta Feedback File i is returned indicating the <u>Data File is rejected</u> . |
| | 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 detected; Error Data Feedback File is returned with errors. |
| | Perform Linkage and Out of Sequence checks | | | |

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 Successful – No Errors (JSON) | | | |
|---|--------------------|---|---|
| Submission Files | | Submission FileName | |
| Data File | | SUBID_MYID_20170307_OrderEvents_000123.json.bz2 | |
| Feedback Type | Feedback File Type | Feedback FileName | Feedback File Contents |
| Acknowledgement | Meta | SUBID_MYID_20170307_OrderEvents_000123.ack.json | { "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" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.integrity.json | { "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" } |
| Ingestion | Meta | SUBID_MYID_20170307_OrderEvents_000123.ingestion.json | { "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "fileName": "SUBID_MYID_20170307_OrderEvents_000123.json.bz2", "receiptTimestamp": "20170307T153552.000001089", "stage": "INGESTION", } |

| File Submission Successful – No Errors (JSON) | | | |
|---|------|---|---|
| | | | <pre>"stageCompleteTimestamp": "20170307T154152.000001089", "status": "Success", "errorCount": 0, "totalRecordsCount": 6543 }</pre> |
| | Data | None | None |
| Linkage Discovery | Meta | SUBID_MYID_20170307_OrderEvents.linkage_000001.json | <pre>{ "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "stage": "LINKAGE", "stageCompleteTimestamp": "20170308T104152.000001089", "status": "Success", "errorCount": 0, "errorDetails": [{ "linkageType": "Intrafirm", "errorTypeCount": 0 }, { "linkageType": "Interfirm", "errorTypeCount": 0 }, { "linkageType": "Exchange", "errorTypeCount": 0 }, { "linkageType": "Trade", "errorTypeCount": 0 }], "doneForDay": true }</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_OrderEvents_000123.json.bz2 | |
| Feedback Type | Feedback File Type | Feedback FileName | Feedback File Contents |
| Acknowledgement | Meta | SUBID_MYID_20170307_OrderEvents_000123.ack.json | { "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" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.integrity.json | { "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", |

| 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_OrderEvents_000123.json.bz2 | |
| Feedback Type | Feedback File Type | Feedback FileName | Feedback File Contents |
| Acknowledgement | Meta | SUBID_MYID_20170307_OrderEvents_000123.ack.json | { "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" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.integrity.json | { "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" } |
| Ingestion | Meta | SUBID_MYID_20170307_OrderEvents_000123.ingestion.json | { "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 } |

| Ingestion Error - Data File Not Readable (JSON) | | | |
|---|------|------|------|
| | Data | None | None |
| Linkage Discovery | Data | None | None |

Table 193: Ingestion and Linkage Errors

| Ingestion and Linkage Errors (JSON) | | | |
|-------------------------------------|--------------------|---|---|
| Submission Files | | Submission FileName | |
| Data File | | SUBID_MYID_20170307_OrderEvents_000123.json.bz2 | |
| Feedback Type | Feedback File Type | Feedback FileName | Feedback File Contents |
| Acknowledgement | Meta | SUBID_MYID_20170307_OrderEvents_000123.ack.json | { "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" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.integrity.json | { "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" } |
| Ingestion | Meta | SUBID_MYID_20170307_OrderEvents_000123.ingestion.json | { "feedbackVersion": "4.1.0", "submitter": "SUBID", "reporter": "MYID", "fileGenerationDate": 20170307, "status": "Success" } |

| Ingestion and Linkage Errors (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.ingestion.error.json.bz2 | <pre>{ "errorCode": [2001,2002] "actionType": "RPR" "errorROEID": 123456 "errorRecord": {<error record>} }, { "errorCode": [2003] "actionType": "RPR" "errorROEID": 123457 "errorRecord": {<error record>} }</pre> |
| Linkage Discovery | Meta | SUBID_MYID_20170307_OrderEvents_000001.1inkage.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": [{ "linkageType": "Intrafirm", "errorTypeCount": 1 }, { "linkageType": "Interfirm", "errorTypeCount": 1 }], }</pre> |

| Ingestion and Linkage Errors (JSON) | | | |
|-------------------------------------|-------|---|---|
| | | | <pre> "linkageType": "Exchange", "errorTypeCount": 0 }, { "linkageType": "Trade", "errorTypeCount": 0 }], "doneForDay": true } </pre> |
| | Error | SUBID_MYID_20170307_OrderEvents.linkage.error_000001.json.bz2 | <pre> { "errorCode": [3002,3003] "actionType": "RPR" "errorROEID": 123456 "errorRecord": {<errorRecord>} } { "errorCode": [8010] "actionType": "RPR" "errorROEID": 123457 "errorRecord": {<linkage key information>} } </pre> |

Table 194: Integrity Success –Data File Delete Instruction

| Integrity Success –Data File Delete Instruction (JSON) | | | |
|--|--------------------|---|--|
| Submission Files | | Submission FileName | |
| Data File - Empty | | SUBID_MYID_20170307_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", </pre> |

| Integrity Success –Data File Delete Instruction (JSON) | | | |
|--|------|---|---|
| | | | "status": "Success" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.DEL.integrity.json | { "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" } |
| 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_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 | { "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" } |
| Integrity | Meta | SUBID_MYID_20170307_OrderEvents_000123.DEL.integrity.json | { "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 } |
| 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_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.bz2,20170307T153552.000001089,INGESTION,20170307T154152.000001089,Success,,0,,,,6543 |
| | Data | None | None |
| Linkage Discovery | Meta | SUBID_MYID_20170307_OrderEvents.linkage_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 | n/a | SUBID_MYID_201703.ack.error | Empty |
| Integrity | Meta | None | None |
| Ingestion | Data | None | None |
| Linkage Discovery | Data | None | 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.csv.bz2 | 2001 2002,RPR,123456,<error record> 2003,RPR,123457,<error record> |
| Linkage Discovery | Meta | SUBID_MYID_20170307_OrderEvents.linkage_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.linkage.error_000001.csv.bz2 | 3002 3003,RPR,123456,<error record> 8010,RPR,123457,<linkage key information> |

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_OrderEvents_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_OrderEvents_000123.DEL.integrity.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_OrderEvents_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_OrderEvents_000123.DEL.integrity.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 |