



Part 2: CAT Billing

Contact Management System and Invoice Demo and Trade Details Review

November 7, 2023

Agenda

1. Introduction
2. Sample Invoice and Trade Details
3. Demo of Contact Management System and Invoicing Process
4. CAT Billing Trade Details
5. Trade Details Schemas
6. Additional Resources
7. Q&A

Introduction

- ▶ On September 6, 2023, the SEC [approved](#) an amendment to the CAT NMS Plan to update a funding model for the CAT.
- ▶ FINRA CAT, LLC, as the Plan Processor, will calculate fees, issue CAT invoices, provide underlying trade details and collect payment on behalf of Consolidated Audit Trail, LLC ("CAT, LLC").
- ▶ FINRA CAT previously conducted a [Part 1: CAT Billing](#) webinar on September 28, 2023.
- ▶ The focus of today's webinar is to provide a demo of the Contact Management System and invoices and to introduce the Trade Details Schema for Industry Members subject to CAT fees (referred to as "CAT Executing Brokers").

Sample Invoice and Trade Details

- ▶ A sample CAT invoice and underlying trade details representing CAT billable trade activity for November 2023 is planned to be published to CAT Executing Brokers on the CAT Reporter Portal by the week of December 26, 2023.
- ▶ The sample invoice will be marked non-payable and will be provided for informational purposes only.
- ▶ The CAT fee effective date will be established on behalf of CAT LLC through Plan Participant fee filings and the first payable invoice will be published on the 25th of the following month (or first business day following the 25th).

Demo

- Contact Management System
- Invoice

CAT Billing Underlying Trade Details

- Underlying trade details related to CAT Billing Invoices will be delivered to each CAT Executing Broker via both SFTP and the CAT Reporter Portal each month when a CAT Invoice is generated.
- A CAT Executing Broker must request a new SFTP account to access trade details machine-to-machine. A notification will be sent once the SFTP request form has been updated to include trade details entitlement.
- A CAT Executing Broker's users with access to CAT invoices will have access to trade details published to the CAT Reporter Portal.
- Trade specific attributes will be included in a Trade Details Schema document to help CAT Executing Brokers identify trades related to the CAT invoice.

Delivery of Underlying Trade Details

➤ File Availability

- Files will be compressed using bzip and will default to .csv format. A CAT Executing Broker can change the file format to .json via the preferences functionality on the Reporter Portal.
- Files will be available via the Reporter Portal and SFTP for 90 calendar days.
 - **CAT Reporter Portal:** The invoices screen will include a new “Trade Details” tab that will display trade detail files for download.
 - **SFTP:** Trade details will be delivered to a new folder within the firm's SFTP directory titled '*supporting-data*'.

➤ File Naming Convention

- Trade Detail file naming convention: *invoice_trade_details_<CRD>_<Invoice ID>_<sequence#>*
 - **CRD** - CRD number of the CAT Executing Broker receiving the Invoice.
 - **Invoice ID** - a unique alphanumeric ID representing an Invoice. Please see the Industry Member CAT Reporter Portal User Guide for more details on Invoice ID name format.
 - **sequence#** - assigns a unique sequence number to each Trade Details file for a given CRD and Invoice ID.
 - *e.g., Sample Underlying Trade File name for CRD – 555 and Invoice ID - CBS20231112345 generated in .csv format*
 - *invoice_trade_details_555_CBS20231112345_0001.csv.bz2*
 - *invoice_trade_details_555_CBS20231112345_0002.jcsv.bz2*
 - *invoice_trade_details_555_CBS20231112345_0003.csv.bz2*

Underlying Trade Details Schema

- ▶ On Exchange details include:

- Trades
- Busted trades
- Corrections

- ▶ Excludes

- Bulk prints
- Away fills
- Test stocks

- ▶ Off Exchange details include:

- Trade report
- Reversal

- ▶ Excludes

- B = Broken
- C = Canceled
- D = Declined
- I = Inhibited (by clearing firm)
- K = Rejected sizable trade

- Non-media (excepting away-from-market)

Trade Underlying Details Schema On Exchange

Seq	Field Name	Data Type (Length)	Description
1	recType	Text (20)	Record Type; Set to 'Exchange' for Exchange Trade Detail Records.
2	versionNumber	Text (10)	The schema version of the file.
3	eventTimestamp	Timestamp	The date/time of the execution or when cancellation was received or when a trade was broken.
4	tradeDate	Date	The date on which a trade occurred or was broken or corrected.
5	executionDate	Date	Date when the trade was executed.
6	eventReportDate	Date	Date the events are reported to the FINRA CAT Processor.
7	exchange	ExchangeID	The ID for the exchange on which the trade took place.
8	side	Text (20)	Side of the execution trade.
9	symbol	Text (20)	Equity symbol in the listing market /OSI Symbol code for option trades.
10	member	Member Alias	The identifier for the member firm that is responsible for the order.
11	memberCRD	Text (20)	CRD number of the executing member firm.
12	executionQuantity	Unsigned	Number of shares traded.
13	executionPrice	Price	Unit price of the shares executed in the trade.
14	tradeID	Text (40)	Identifier used by an exchange to identify a specific trade.

Seq	Field Name	Data Type (Length)	Description
15	refTradeID	Text (40)	The trade being referenced. Used to link corrections if trade corrections can assign new identifiers to trades. If included, refTradeID must reference a previously reported trade, or a previously reported trade correction that has a matching tradeID.
16	quoteID	Text (40)	The ID of the quote, only applicable only when this side of the execution is a market maker quote.
17	routedOrderID	Text (40)	The order ID that the firm used in the API message when they routed the original order to the exchange (e.g., in FIX it would be ClOrdId, in OUCH it would be Order Token).
18	session	Text (40)	The ID assigned to the specific session that the routing member used to route the order to the exchange
19	routingParty	Text (8)	The ID string used to identify the entity that routed this order to the exchange (senderIMID)
20	eventType	Text (5)	Event Type submitted by Exchange to CAT: EOT Order Trade ETB Trade Break ETC Trade Correction OT Simple Option Trade OTC Option Trade Correction OTB Option Trade Break
21	optionMultiplier	Numeric	Value equivalent to the options contract multiplier. optionMultiplier will be used to calculate executedEquivalentShares.
22	executedEquivalentShares	Numeric	Same as executionQuantity for NMS Stocks. For Listed Options, executionQuantity will be multiplied by optionMultiplier to calculate executedEquivalentShares.

Route linkage key field

Sample Exchange Trade Details

- ▶ Exchange correction scenario:
 - The exchange issues a correction event to decrease the size of the originally-reported transaction from 15 shares to 10
 - These events are linked via *tradeID* and *refTradeID*
- ▶ CAT Executing Broker 123 will:
 - Be billed only for the final state of the transaction (1000 equivalent executed shares)
 - Will see two rows in trade details, consistent with how this was reported to CAT

eventTimestamp	tradeDate	executionDate	eventReportDate	exchange	side	symbol	member	memberCRD	executionQuantity	executionPrice	tradeID	refTradeID	quoteID	routedOrderID	session	routingParty	eventType	optionMultiplier	equivalentExecShares
20230330101211	3/30/23	3/30/23	3/30/23	OAZW	Sell	EWQR 230915P00020000	123	10010	15	10	1			854123578	123ASQ	123	OT	100	1500
20230330104642	3/30/23	3/30/23	3/30/23	OAZW	Sell	EWQR 230915P00020000	123	10010	10	10	2	1		854123578	123ASQ	123	OTC	100	1000

Route linkage key field

Route Field Mapping – On Exchange

- ▶ Underlying trade details reflect events as reported by the Plan Participants, but can be mapped back to the Industry Member outbound route using linkage key fields
- ▶ CAT Executing Brokers can refer to section 2.6.3 of the [CAT Reporting Technical Specifications for Industry Members](#) for further details (example for equity exchange trades below):

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>

Route Field Mapping – On Exchange

- ▶ Events can be further mapped to input protocols (FIX or Exchange binaries) on an exchange-by-exchange basis
- ▶ CAT Executing Brokers can refer to [Order Routing Field Mapping Between CAT and Exchanges](#) for further details (example for IEX trades below):

CAT Report Field	Exchange-Related Field
senderIMID	OnBehalfOfCompID (Tag 115)
routedOrderID	ClOrdID (Tag 11)
symbol	Symbol
eventTimestamp	Trade Date
session	SenderCompID (Tag 49)

Trade Underlying Details Schema Off-Exchange

Seq	Field Name	Data Type (Length)	Description
1	recType	Text (20)	Record Type; Set to 'TRF' for 'TRF/ORF' Trade Detail records.
2	versionNumber	Text (10)	The schema version of the file.
3	executionTimestamp	Timestamp	Date and time the execution occurred.
4	tradeReportTimestamp	Timestamp	Date and time the trade report was received by the reporting facility.
5	tradeReportDate	Date	Date the trade report was received by the reporting facility.
6	executionDate	Date	Date the execution occurred.
7	eventReportDate	Date	Date the events are reported to the FINRA CAT Processor.
8	marketCenterId	Choice	Trade Reporting Facility/ORF where the trade was reported. Allowed Values: C Nasdaq TRF Chicago D ADF-TRF N NYX-TRF L Nasdaq-TRF O OTC-TRF (ORF)
9	reportedSideCode	Choice	Side of the trade (buy/sell/cross) from the perspective of the firm with the reporting obligation. Allowed Values: B Buy Side S Sell Side X Crossed Trade
10	symbol	Text (20)	Equity symbol in the listing market /Option Symbol Id derived from Options Dictionary.
11	reportingExecutingMpid	Member Alias	MPID of the executing party.
12	reportingExecutingCRD	Text (20)	CRD or Member ID of the executing party.
13	contraExecutingMpid	Member Alias	MPID of the contra-side executing party.

Seq	Field Name	Data Type (Length)	Description
14	contraExecutingCRD	Text (20)	CRD or Member ID of the contra executing party.
15	executionQuantity	Unsigned	Number of shares traded.
16	executionPrice	Price	Unit price of the trade.
17	controlNumber	Text (30)	Unique identifier for the reporting side of each transaction.
18	contraControlNumber	Text (30)	Control Number for the contra party.
19	reportingSideBranchSequenceIdentifier	Text (20)	Branch/sequence number of the reporting-side firm.
20	contraSideBranchSequenceIdentifier	Text (20)	Branch/sequence number of the contra-side firm.
21	reversalFlag	Choice	Indicates that the trade report is a reversal transaction. Y Reversal N Not a reversal
22	publishIndicatorCode	Choice	Identifies if the trade is media reportable or not. Y Media Report Eligible N Not Media Report Eligible
23	saleCondition	Text (8)	Condition under which trade was executed.
24	respForBothSides	Text (1)	This flag will be set to 'Y' if reporting executing firm is responsible for both sides of the transaction.
25	otcMultiplier	Numeric	0.01 for OTC Equity Securities. otcMultiplier will be used to calculate executedEquivalentShares.
26	executedEquivalentShares	Numeric	Same as executionQuantity for NMS Stocks. For OTC Equity Securities, executionQuantity will be multiplied by otcMultiplier to calculate executedEquivalentShares.

Route linkage key field

Sample Off-Exchange Trade Details

- ▶ Reversal scenario:
 - The reporting firm issues a reversal to correct branch sequence number
 - Unlike Exchange events, these events are not explicitly linked
- ▶ CAT Executing Broker 1234 will:
 - Be billed for 500 shares—the net quantity of two reports and one reversal
 - Will see three rows in trade details, consistent with how this was reported to CAT

executionTimestamp	tradeReportTimestamp	tradeReportDate	executionDate	eventReportDate	marketCenterId	reportedSideCode	Symbol	reportingExecutingMpid	reportingExecutingCRD	contraExecutingMpid	contraExecutingCRD	executionQuantity	executionPrice	controlNumber	contraControlNumber	reportingSide	contraSide	branchSequenceIdentifier	reversalFlag	publishIdentifier	saleIndicatorCode	respForBothSides	otcMultiplier	equivalentExecShares
20230123161703	20230123161703	1/24/23	1/23/23	1/24/23	L	B	DGRO	ABCD	1234	XYZW	5678	500	50.771	1	11	5698	5698	N	Y		N	1	500	
20230123161703	20230123161703	1/24/23	1/23/23	1/24/23	L	B	DGRO	ABCD	1234	XYZW	5678	500	50.771	2	22	8756	8756	Y	Y		N	1	500	
20230123161703	20230123161703	1/24/23	1/23/23	1/23/23	L	B	DGRO	ABCD	1234	XYZW	5678	500	50.771	3	33	6574	6574	N	Y		N	1	500	

Route linkage key field

Route Field Mapping – Off Exchange

- ▶ Underlying trade details reflect events as reported by the Plan Participants
- ▶ CAT Executing Brokers can refer to section 2.6.3 of the [CAT Reporting Technical Specifications for Industry Members](#) for further details (example for off-exchange trades below):

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
	<i>marketCenterID</i>	Market Center ID

Additional Resources

- ▶ The following resources will be published on the new [CAT Fees](#) page on the CAT NMS Plan website:
 - **Currently Available**
 - CAT Funding Model Approval Order
 - CAT Billing CAT Alert
 - CAT Billing FAQs
 - CAT Billing Trade Details Schema
 - **Will be published at a later date**
 - CAT Fee Filings (Submitted by Plan Participants on behalf of CAT, LLC)
 - CAT Billing Trade Details Specification
 - CAT Billing Scenarios
 - CAT Fee Alerts
 - CAT Billing Trade Summaries
 - CAT Billing Webinars

FINRA CAT Help Desk

Questions may be directed to the FINRA CAT Help Desk at 888-696-3348
or by email at help@finracat.com

How to Ask a Question during Today's Call

▶ **For participants using computer audio:**

- Click the “Participants” button at the bottom of the app window, then the “Raise Hand” button at the bottom of the participants window.
- A visual prompt will indicate that your line has been unmuted.

▶ **For participants using phone audio:**

- Enter *9 on your keypad.
- An audio prompt will indicate that your line has been unmuted.