

# CAT Technical Specifications for Billing Trade Details

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## Executive Summary

This document describes the CAT Billing Trade Details Files associated with monthly CAT invoices, including detailed information about data elements and file formats. It also describes access instructions, network and transport options.

This document should be read in conjunction with companion materials related to CAT Billing available on the [CAT Fees](#) section of the website, including [Section V](#) of the FAQs, the [Industry Member Onboarding Guide](#), the [CAT Reporter Portal User Guide](#), [FINRA CAT Connectivity Supplement for Industry Members](#), and [CAT Alert 2023-02](#) (CAT Billing).

The [CAT Billing Scenarios](#) document should be used as a guide for determining how CAT data reported by Participants is used to identify the CAT Executing Brokers for the Buyer and Seller for each transaction.

**Table 1: Revision / Change Process**

Version	Date	Author	Description
1.0	11/30/23	Consolidated Audit Trail, LLC	Initial publication. Applicable Schema version 1.0
1.0 r1	12/8/2023	Consolidated Audit Trail, LLC	Updated Rule 5 in Section 4.1: CAT Billing Trade Details File Generation to reflect that files will contain approximately 5,000,000 records. Up from 1,000,000 records previously. Added <i>exchange</i> value of MEMXOP in Appendix B: Data Dictionary Corrected applicable <i>reportingExecutingCRD</i> , <i>contraExecutingCRD</i> , and <i>memberCRD</i> values in Appendix C examples.
<a href="#">1.1</a>	<a href="#">9/24/2024</a>	<a href="#">Consolidated Audit Trail, LL</a>	<a href="#">Clarified timing of delivery of invoices and CAT Billing Trade Details in Section 1.2.4: CAT Billing Trade Details Files, Table 5: SFTP Directory, and Section 4: CAT Billing Trade Details Files and Data</a> <a href="#">Added Section 2.1.2: Required and Optional Fields in CAT Billing Trade Details Records</a> <a href="#">Added clarification to Section 3: File Posting Notifications and System Status about email notifications and portal announcements regarding invoice publications</a> <a href="#">Added additional rules and clarifications to Section 4.1 CAT Billing Trade Details File Generation</a> <a href="#">Added Include Key to Section 4.1.2: CAT Billing Trade Details File Schema, for both On Exchange and Off-Exchange schemas.</a> <a href="#">Clarified descriptions of <i>mootLinkIdIdentifier</i> and <i>optionMultiplier</i> fields in Section 4.1.2.1: On Exchange Schema</a> <a href="#">Clarified descriptions of <i>executionDate</i> and <i>executionPrice</i> fields in Section 4.1.2.2: Off-Exchange Schema</a> <a href="#">Corrected Data Type Lengths of <i>optionMultiplier</i> and <i>otcMultiplier</i> fields in applicable schemas</a> <a href="#">Added Section 4.3: Transactions Subject to CAT Fees</a> <a href="#">Added additional examples to <i>saleCondition</i> description in</a>

Version	Date	Author	Description
			<p><u>Appendix B: Data Dictionary</u>  <u>Corrected applicable JSON and CSV examples in Appendix C: CAT Billing Trade Details File and Data Examples</u></p> <p><b><u>Addition of MIAX Sapphire Exchange (Production - August 2024 Invoice, published September 25, 2024)</u></b></p> <ul style="list-style-type: none"> <li>• <u>Added 'SPHR' value to exchange field in Appendix B: Data Dictionary</u></li> </ul> <p><b><u>Addition of <i>netExecutedEquivalentShares</i> Field (Production - September 2024 Invoice, published October 25, 2024)</u></b></p> <ul style="list-style-type: none"> <li>• <u>Added <i>netExecutedEquivalentShares</i> field Section 4.1.2: CAT Billing Trade Details File Schema, for both On Exchange and Off-Exchange schemas</u></li> <li>• <u>Added Section 4.4 Net Executed Equivalent Shares, with examples for both On Exchange and Off-Exchange scenarios</u></li> <li>• <u>Updated <i>versionNumber</i> and added <i>netExecutedEquivalentShares</i> field in JSON and CSV examples in Appendix C: CAT Billing Trade Details File and Data Examples</u></li> </ul>

# 1. Introduction

## 1.1. CAT Billing Overview

Industry Members who are CAT Executing Brokers that have billable CAT trading activity will receive CAT invoices. See FAQ [V3](#) and [CAT Alert 2023-02](#) (CAT Billing) for the definition of a “CAT Executing Broker” and FAQs [V4](#) and [V5](#) for a discussion of CAT billable [trading](#) activity.

## 1.2. CAT Reporter Portal

This section contains information about CAT Reporter Portal functionality related to the CAT Billing Trade Details Files. See the [CAT Reporter Portal User Guide](#) for more information.

### 1.2.1. CAT Invoice Viewer Functionality

The Invoice Viewer functionality within the CAT Reporter Portal contains various documents and files associated with CAT Billing, including Invoices and Late Notices, as well as the CAT Billing Trade Details files. The Invoice Viewer also contains summary information for each invoice, including the current status and amount outstanding as payments are received and processed.

### 1.2.2. CAT Billing Trade Details File Format Preference Setting

Account Administrators for an Industry Member may change the file format preference for CAT Billing Trade Details Files via the CAT Reporter Portal.

### 1.2.3. CAT Invoice

CAT invoices will be available as PDF files on the CAT Reporter Portal to properly entitled users. Invoices will be delivered on the 25<sup>th</sup> day of the month following the month in which the billable activity occurred. In the event the 25<sup>th</sup> day is a weekend or holiday, invoices will be delivered on the next business day. Payment for invoices is due within 30 days of the date that the invoice is generated and posted. Revised invoices are only generated in the event an invoice was initially with errors due to Plan Processor error and would follow a different delivery schedule. The delivery of invoices and revised invoices will be communicated as outlined in [Section 3: File Posting Notifications and System Status](#).

See Section 14 of the [CAT Reporter Portal User Guide](#) for more information related to the CAT Invoice Viewer, including an overview of the Invoice. Also see [CAT Alert 2023-02](#) (CAT Billing) or [Section V](#) of FAQs for additional information.

#### 1.2.4. CAT Billing Trade Details Files

CAT Billing ~~Invoice~~-Trade Details Files are ~~generated and published concurrently with the invoices~~ generally available by 7:00 PM EST on the date of invoice publication. CAT Billing Trade Details Files are ~~and~~ available for download in a separate tab within the Invoice Viewer functionality. These files are available in the CAT Reporter Portal for 90 calendar days.







Data Type	JSON Type	Description
		that only applies to exchanges (all participants except FINRA). Exchange ID is a subset of Participant ID, which is a subset of Participant Reporter ID. A Participant ID is an ID assigned by CAT to each plan participant. The value will be the same as the participant's CAT Reporter ID. A CAT Reporter ID will uniquely identify each reporter, including Plan Participants, Industry Members, and associated reporting facilities.

### **2.1.2.Required and Optional Fields in CAT Billing Trade Details Records**

Throughout this document, record fields on the CAT Billing Trade Details File schema will be defined. Each field will be notated with the abbreviation R or O to represent whether it is required or optional. Required fields will always be included in each given record of the CAT Billing Trade Details, while Optional fields will only be populated with data when such data is applicable to that particular record.

**Table 3: Include Key**

<u>Value</u>	<u>Abbreviation</u>	<u>Description</u>
<u>Required</u>	<u>R</u>	<u>Required field for the given record. This field will always be included in CAT Billing Trade Details.</u>
<u>Optional</u>	<u>O</u>	<u>Optional for the given record. This field will only be populated when such data is applicable to the given CAT Billing Trade Details record.</u>

## **2.2. CAT Billing Trade Details File**

### **2.2.1.Supported Formats**

CAT Billing Trade Details are supported in JSON and CSV formats. By Default, the CAT Billing Trade Details files will be delivered in CSV format. Account Administrators for an Industry Member may change the file format settings for CAT Billing Trade Details Files via the CAT Reporter Portal. See the [CAT Reporter Portal User Guide](#) for more information.

### **2.2.2.Schema**

The [Trade Details Schemas](#), which detail the structure and expected contents of the CAT Billing Trade Details files, are available on the CAT public website. The schema file will be maintained by the Plan Processor and will be versioned as the CAT Technical Specifications for Billing Trade Details change.

#### **2.2.2.1. Schema Version**

Schema changes will be updated when changes to the CAT Billing Trade Details 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 'invoice\_trade\_details'.
2. The Schema Version is formatted as <Major>.<Minor>.<Patch>. All digits must be represented.
  - **Major** – updated when a change occurs that impacts all or a significant portion of Industry Members. In such cases, the schema is not backward compatible and will be specified accordingly.
  - **Minor** – updated when a change occurs that does not require coding changes for all Industry Members. In such cases, the schema is not backward compatible with support for previous version(s) as specified.
  - **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 in the CAT Billing Trade Details File will be formatted as per the Schema Version outlined in these Technical Specifications.

### 2.3. Schema Version

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
<b>dataType</b>	Data Type (e.g., Price) as defined in <a href="#">Table 2: Data Types</a> .
<b>JSONDataType</b>	JSON standard data type to be used to submit data of this type. The JSON standard data types used in this schema are STRING, NUMBER, and OBJECT.
<b>maxLength</b>	Maximum length of the string submission. Applicable to text and alphanumeric types only.
<b>scale</b>	Number of digits after the decimal point. Applicable to numeric types only.
<b>precision</b>	Number of digits in a number. Applicable to numeric types only.

2. **CAT Billing Trade Details Definitions** – Field specifications for Trade Details defined in the [Trade Details Schemas](#). Each field specification object contains the following elements:

Element	Description
<b>name</b>	Field Name set equal to Record Type for each event being specified.
<b>dataType</b>	Data Type.
<b>JSONDataType</b>	JSON standard data type to be used to submit data of this type.
<b>required</b>	Indicates whether the field is "Required" or "Optional".
<b>position</b>	The applicable CSV position of the field.

- **Choices** – For Choice data types, the list of possible values.

### 2.3.1.1. Example

The following is an abbreviated example of a schema containing part of the CAT Billing Trade Details File:

```
"RecordType": "Exchange",
"fields":
[
  {
    "name": "recType",
      "dataType": "Text (20)",
      "JSONDataType": "STRING",
      "required": "Required",
      "position": "1"
    },
  {
    "name": "versionNumber",
      "dataType": "Text (10)",
      "JSONDataType": "STRING",
      "required": "Required",
      "position": "2"
    }
  ],
]
```

## 2.4. 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 SFTP access, which provides access for automated, machine-to-machine CAT Billing Trade Details Files using the Secure File Transfer Protocol (SFTP) service as well as to the CAT Reporter Portal for accessing CAT Billing Trade Details Files.

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 4: Connectivity Methods and Supported CAT Interfaces Methods**

Connectivity Methods	Interface Methods
----------------------	-------------------

	SFTP Access	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](#).

**2.5. CAT Interface Methods**

The interface methods available to Industry Members and CAT Reporting Agents to retrieve CAT Billing Trade Details Files include SFTP access 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](#).

**2.5.1.SFTP Access**

The SFTP access method is an automated, machine-to-machine interface utilizing the Secure File Transfer Protocol (“SFTP”) to retrieve CAT Billing Trade Details Files. SFTP enables Industry Members to create machine-to-machine connections to securely retrieve data from FINRA CAT.

The following is the SFTP directory structure that will be made available in the Industry Member’s home directory. Files associated with CAT Billing Trade Details will be uploaded in SFTP directories as per the following table.

**Table 5: SFTP Directory**

SFTP Directory	Usage
/CATExecutingBrokerIndustryMemberCRD/cat/supporting-data	Files containing <del>Trade-Billing Trade Details generated and</del> posted <u>generally by 7:00 PM EST on the date of concurrently with</u> Invoice publication.

**2.5.2.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 delivery of the CAT Billing Trade Details Files to properly entitled users.

## **2.6. Security**

### **2.6.1. 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 access, 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.

### **2.6.2. 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/>. For more information on entitlements related to SFTP access of the CAT Billing Trade Details, see the [Industry Member Onboarding Guide](#).

### 3. File Posting Notifications and System Status

CAT provides notifications and information associated with CAT Billing Trade Details Files delivery, including:

- **System Status and Announcements:** ~~Announcements will be posted to available via the CAT Reporter Portal when the invoices have been published, 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.~~
- **Email notifications:** Email notifications will be sent each month when the invoices have been published, ~~in the CAT Reporter Portal, and CAT Billing Trade Details are published concurrently to the invoice.~~ Email Invoice notifications will be sent to subscribers of the Consolidated Audit Trail (CAT) email subscription list and Billing Contacts within the CAT Contact Management System. ~~Email notifications will also be sent for system status updates.~~ In the event a revised invoice is published for an Industry Member, email notifications will be sent to applicable Billing Contacts within the CAT Contact Management System.

## 4. CAT Billing Trade Details Files and Data

The CAT Billing Trade Details Files are ~~delivered concurrently and in conjunction with an Invoice generally available by 7:00 PM EST on the date of invoice publication. being generated, and are posted to the CAT Reporter Portal for month and year of the CAT reporting period for which the invoice was generated.~~ Invoices will be delivered on the 25<sup>th</sup> day of the month following the month in which the billable activity occurred. In the event the 25<sup>th</sup> day is a weekend or holiday, invoices will be delivered on the next business day. If no invoice was generated for an Industry Member for a particular month, then no CAT Billing Trade Details File will be generated. Revised invoices are only generated in the event an invoice was initially with errors due to Plan Processor error and would follow a different delivery schedule. The delivery of invoices and revised invoices will be communicated as outlined in Section 3: File Posting Notifications and System Status.

### 4.1. CAT Billing Trade Details File Generation

CAT Billing Trade Details Files will be made available via SFTP and/or the CAT Reporter Portal as described in Table 4: Connectivity Methods and Supported CAT Interfaces Methods.

For CAT Billing Trade Details files made available via SFTP or the CAT Reporter Portal, the following rules apply:

1. The format of CAT Billing Trade Details files will be defaulted to CSV format unless the Industry Member specifies the JSON file format preference setting within the CAT Reporter Portal. Account Administrators may change the file format settings for an Industry Member.
2. CAT Billing Trade Details Files will be compressed in the 'bz2' compression extension.
3. Files will be individually compressed and posted. Multiple files will not be bundled.
4. Each line in the file will contain exactly one record ending with a new-line character of \n if in CSV format. In JSON, each record is a normal JSON object contained within the curly brackets {} and will end with a new-line character (ASCII decimal 10, hex 0A).
5. The comma (ASCII decimal 44, hex 2C) is the JSON and CSV field delimiter.
6. The retention time for CAT Billing Trade Details files on the SFTP server is 90 calendar days. After that time, they will be removed from the server. CAT Billing Trade Details will likewise be available via the CAT Reporter Portal for 90 calendar days.
7. Files have a record limit of approximately 5,000,000 records per file. CAT Executing Brokers with more than approximately 5,000,000 records for a given invoice month will receive multiple files until all records have been provided. Each file will be incremented using a File Sequence Number guaranteeing uniqueness (e.g., 0001, 0002, 0003).



8. CAT Billing Trade Details for an Industry Member will be accessible under the Industry Member's home directory on the SFTP server if the Industry Member has an SFTP account.

9. The SFTP directory is read-only. File deletion is not supported.

10. CAT Billing Trade Details Schema files will be maintained by the Plan Processor and will be versioned as the CAT Billing Trade Details Technical Specifications change.

11. Events within a file may be in any sequence.

12. CAT Billing Trade Details files will contain records for any Date of the month for which the Invoice was generated, including any cancellations, corrections, busts and late reporting associated with any activity in the prior three months.

#### 4.1.1.CAT Billing Trade Details File Names

1. CAT Billing Trade Details Files created by CAT will be named using the following format:

<invoice\_trade\_details>\_<CRD of Executing Broker receiving the CAT Billing Trade Details File>\_<Invoice Number>\_<Sequence number of the file, 4-digits long left-padded with zeros>.<Format Extension>.<Compression Extension>

Example: invoice\_trade\_details\_99999999\_CBS20231112345\_0001.csv.bz2

Example: invoice\_trade\_details\_99999999\_CBS20231112345\_0001.json.bz2

**Table 6: Elements of a CAT Billing Trade Details File Name**

Field Name	Data Type	Description
File Kind	Alphanumeric	Set to 'invoice_trade_details'. Case sensitive.
CAT Executing Broker ID	Unsigned	The CRD Number of the CAT Executing Broker receiving the CAT Billing Trade Details File.
Invoice Number	Alphanumeric	<p>The Base File Name (excluding format extension) of Invoice Number of the invoice associated with the CAT Billing Trade Details File.</p> <p>CBS&lt;6-digit integer representing the month and year of the CAT reporting period for which the invoice was generated YYYYMM&gt;&lt;random 5-digit long integer, left-padded with zeroes, representing the sequence number used by the Plan Processor for Invoice document generation&gt;</p> <ul style="list-style-type: none"> <li>• Example: CBS20231100001</li> <li>• Example: CBS20231100002</li> </ul> <p>The Revised Invoice's file name will be the same as the original Invoice with the updated version number of the Revised Invoice appended to the end (e.g., _1, _2, etc.).</p> <ul style="list-style-type: none"> <li>• Example: CBS20231100001_1</li> </ul>

Field Name	Data Type	Description
		See Section 14 of the <a href="#">CAT Reporter Portal User Guide</a> for more information related to the naming format for Invoices and Revised Invoices.
File Sequence Number	Unsigned	Sequence number of the file, 4-digits long left-padded with zeros The File Sequence number will always be provided to prevent duplicate CAT Billing Trade Details file names when multiple files for the same CAT Executing Broker ID are generated and associated with the same Invoice.
Format Extension	Alphanumeric	Represents the CAT Billing Trade Details format. JSON formatted CAT Billing Trade Details will be set to 'json', and CSV formatted CAT Billing Trade Details will be populated with 'csv'.
Compression Extension	Alphanumeric	Set to 'bz2'. Case sensitive.

#### 4.1.2. CAT Billing Trade Details File Schema

There are two types of CAT Billing Trade Details records, On Exchange and Off-Exchange.

##### 4.1.2.1. On Exchange Schema

**Table 7: Elements of a CAT Billing Trade Details – On Exchange**

Seq	Name	Data Type (Length)	Description	<a href="#">Include Key</a>
1	recType	Text (20)	Record Type; Set to 'Exchange' for Exchange Trade Detail Records.	<a href="#">R</a>
2	versionNumber	Text (10)	The schema version of the file.	<a href="#">R</a>
3	eventTimestamp	Timestamp	The date/time of the execution or when cancellation was received or when a trade was broken.	<a href="#">R</a>
4	tradeDate	Date	The date on which a trade occurred or was broken or corrected.	<a href="#">R</a>
5	executionDate	Date	Date when the trade was executed.	<a href="#">R</a>
6	eventReportDate	Date	Date the events are reported to the FINRA CAT Processor.	<a href="#">R</a>
7	exchange	Exchange ID	The ID for the exchange on which the trade took place. See <a href="#">Appendix B: Data Dictionary</a> for <i>exchange</i> values.	<a href="#">R</a>
8	side	Text (20)	Side of the execution trade.	<a href="#">R</a>
9	symbol	Text (20)	Equity symbol in the listing market /OSI Symbol code for option trades.	<a href="#">R</a>
10	member	Member Alias	The identifier for the member firm that is responsible for the order. This is the CAT Executing Broker.	<a href="#">Q</a>
11	memberCRD	Text (20)	CRD number of the executing member firm.	<a href="#">R</a>
12	executionQuantity	Unsigned	Number of shares traded.	<a href="#">R</a>

Seq	Name	Data Type (Length)	Description	Include Key
13	executionPrice	Price	Unit price of the shares executed in the trade.	<u>Q</u>
14	tradeID	Text (40)	Identifier used by an exchange to identify a specific trade.	<u>R</u>
15	refTradeID	Text (40)	The trade being referenced. Used to link corrections if trade corrections can assign new identifiers to trades. If included, <i>refTradeID</i> must reference a previously reported trade, or a previously reported trade correction that has a matching tradeID.	<u>Q</u>
16	quoteID	Text (40)	The ID of the quote, only applicable only when this side of the execution is an options market maker quote.	<u>Q</u>
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).	<u>Q</u>
18	session	Text (40)	The ID assigned to the specific session that the routing member used to route the order to the exchange.	<u>Q</u>
19	routingParty	Text (8)	The ID string used to identify the entity that routed this order to the exchange (senderIMID).	<u>Q</u>
20	mootLinkIdentifier	Text (40)	The Order ID of the MOOTLink Trade from the Industry Member Data. <u>Manual floor trades reported to FINRA CAT as MOOT events. This field contains the identifier that will be used for linkage to the IM MOOT event.</u>	<u>Q</u>
21	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	<u>R</u>
22	optionMultiplier	Numeric (18,23,96)	Value equivalent to the options contract multiplier. <u>For Listed Options, optionMultiplier will be used to calculate executedEquivalentShares.</u>	<u>Q</u>
23	executedEquivalentShares	Numeric (23,9)	Same as executionQuantity for NMS Stocks. For Listed Options, <i>executionQuantity</i> will be multiplied by <i>optionMultiplier</i> to calculate <i>executedEquivalentShares</i> .	<u>R</u>
24	<u>netExecutedEquivalentShares</u>	<u>Numeric (23,9)</u>	<u>Net Executed Equivalent Shares with the final Executed Equivalent Shares quantity for a trade after cancellations, corrections, reversals, busts and late reporting are calculated.</u> <u>For a set of related trades, the calculated Net Executed Equivalent Shares will be populated on the earliest reported event, and subsequent related trade events will be null.</u> <u>If there is an adjustment from a trade that originally occurred in the prior three months, then this field will</u>	<u>Q</u>

Seq	Name	Data Type (Length)	Description	Include Key
			contain the delta of the Executed Equivalent Shares from the billing volume in the previous month(s).	

#### 4.1.2.2. Off-Exchange Schema

Table 8: Elements of a CAT Billing Trade Details – Off-Exchange

Seq	Name	Data Type (Length)	Description	Include Key
1	recType	Text (20)	Record Type; Set to 'TRF' for TRF/ORF Trade Detail records.	<u>R</u>
2	versionNumber	Text (10)	The schema version of the file.	<u>R</u>
3	executionTimestamp	Timestamp	Date and time the execution occurred.	<u>R</u>
4	tradeReportTimestamp	Timestamp	Date and time the trade report was received by the reporting facility.	<u>R</u>
5	tradeReportDate	Date	Date the trade report was received by the reporting facility.	<u>R</u>
6	executionDate	Date	Date <del>when the trade was executed</del> <u>when the trade was executed</u> .	<u>R</u>
7	eventReportDate	Date	Date the events are reported to the FINRA CAT Processor.	<u>R</u>
8	marketCenterId	Choice	Trade Reporting Facility/ORF where the trade was reported. See <a href="#">Appendix B: Data Dictionary</a> for <i>marketCenterId</i> values.	<u>R</u>
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	<u>R</u>
10	symbol	Text (20)	Equity symbol in the listing market.	<u>R</u>
11	reportingExecutingMpid	Member Alias	MPID of the executing party.	<u>R</u>
12	reportingExecutingCRD	Text (20)	CRD of the executing party.	<u>R</u>
13	contraExecutingMpid	Member Alias	MPID of the contra-side executing party.	<u>R</u>
14	contraExecutingCRD	Text (20)	CRD of the contra executing party.	<u>O</u>
15	executionQuantity	Unsigned	Number of shares traded.	<u>R</u>
16	executionPrice	Price	Unit price of the <u>shares executed in the</u> trade.	<u>R</u>

Seq	Name	Data Type (Length)	Description	Include Key
17	controlNumber	Text (30)	Unique identifier for the reporting side of each transaction.	<u>R</u>
18	contraControlNumber	Text (30)	Control Number for the contra party.	<u>O</u>
19	reportingSideBranchSequenceIdentifier	Text (20)	Branch/sequence number of the reporting-side firm.	<u>O</u>
20	contraSideBranchSequenceIdentifier	Text (20)	Branch/sequence number of the contra-side firm.	<u>O</u>
21	reversalFlag	Choice	Indicates that the trade report is a reversal transaction. Y Reversal N Not a reversal	<u>R</u>
22	publishIndicatorCode	Choice	Identifies if the trade is media reportable or not. Y Media Report Eligible N Not Media Report Eligible	<u>R</u>
23	saleCondition	Text (8)	Condition under which trade was executed. See <a href="#">Appendix B: Data Dictionary for saleCondition</a> values.	<u>R</u>
24	sideFlag	Text (40)	This flag will be set to 'ReportingSide' or 'ContraSide' based on the CAT Executing Broker. The side represents the side reported on the TRF Trade for which the CAT Executing Broker is responsible for CAT Billing purposes.	<u>R</u>
25	otcMultiplier	Numeric (6,23,49)	0.0100 for OTC Equity Securities. 1.0000 for NMS Securities. <i>otcMultiplier</i> will be used to calculate <i>executedEquivalentShares</i> .	<u>R</u>
26	executedEquivalentShares	Numeric (23,9)	Same as <i>executionQuantity</i> for NMS Stocks. For OTC Equity Securities, <i>executionQuantity</i> will be multiplied by <i>otcMultiplier</i> to calculate <i>executedEquivalentShares</i> .	<u>R</u>
<u>27</u>	<u>netExecutedEquivalentShares</u>	<u>Numeric (23,9)</u>	<u>Net Executed Equivalent Shares with the final Executed Equivalent Shares quantity for a trade after cancellations, corrections, reversals, busts and late reporting are calculated.</u> <u>When the reversalFlag is populated with 'Y', this field will have a negative value.</u>	<u>R</u>

## 4.2. Route and Trade Linkage Key References

CAT Billing Trade Details data 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.

Events can be further mapped to input protocols (FIX or Exchange binaries) on an exchange-by-exchange basis. For more information on route linkage keys use for orders routed to exchanges, see the [Order and Quote Routing Field Mapping between CAT and Exchanges/Display-Only Facility](#) document, as well as the [Options Exchange Trade Mapping](#) document.

## 4.3. Transactions Subject to CAT Fees

Exchange trade data and TRF/ORF objects reported to CAT by the exchanges and FINRA are used to calculate CAT Fees, as outlined in the below table.

**Table 9: Transactions Subject to CAT Fees**

<u>Transactions In Scope for CAT Billing</u>	<u>Transactions Not In Scope</u>
<u>Tape (media) exchange trade events (OT/EOT)</u>	<u>Non-tape/non-media leg of a riskless principal flip</u>
<u>TRF/ORF tape (media) reports</u>	<u>Step out trades</u>
<u>TRF/ORF non-tape (non-media) reporters where the sale condition indicates "away from market" (consistent with FINRA Section 3 Regulatory Transaction Fees)</u>	<u>Clearing only and Reg only reports</u>

## 4.4. Net Executed Equivalent Shares

The *netExecutedEquivalentShares* field is intended to assist Industry Members in reconciliation and accounting of the final Executed Equivalent Shares quantity for a trade after cancellations, corrections, reversals, busts and late reporting are calculated.

The following examples include abbreviated schema containing part of the CAT Billing Trade Details to demonstrate how the *netExecutedEquivalentShares* field is populated in various scenarios. All examples are illustrative and do not identify all applicable fields.

### 4.4.1. Off Exchange

In the following example, a TRF trade is executed and then later reversed. In this instance, the associated *netExecutedEquivalentShares* values correspond to the applicable trade or reversal, and nullify the

transaction. The *netExecutedEquivalentShares* field corresponding to the reversal (i.e., where the *reversalFlag* is marked 'Y') is populated with a negative value (i.e., -9000).

**Table 10: CAT Billing Trade Details Net Executed Equivalent Shares Off Exchange Example**

<u>TRF Execution Reports</u>	<u>Rec Type</u>	<u>executionQuantity</u>	<u>reversal Flag</u>	<u>otc Multiplier</u>	<u>executedEquivalentShares</u>	<u>netExecutedEquivalentShares</u>
<u>Original TRF Execution Report</u>	<u>TRF</u>	<u>9000.000000000</u>	<u>N</u>	<u>1.0000</u>	<u>9000.000000000</u>	<u>9000.000000000</u>
<u>Reversal TRF Report</u>	<u>TRF</u>	<u>9000.000000000</u>	<u>Y</u>	<u>1.0000</u>	<u>9000.000000000</u>	<u>-9000.000000000</u>

#### **4.4.2. On Exchange**

In the following example, a trade is executed on an exchange and then cancelled. In this instance, as the trade was broken, the associated *netExecutedEquivalentShares* value on the trade is '0'.

**Table 11: CAT Billing Trade Details Net Executed Equivalent Shares On Exchange Example**

<u>Plan Participant CAT Reports</u>	<u>recType</u>	<u>eventType</u>	<u>executionQuantity</u>	<u>executedEquivalentShares</u>	<u>netExecutedEquivalentShares</u>
<u>Trade on Exchange</u>	<u>Exchange</u>	<u>EOT</u>	<u>9000.000000000</u>	<u>9000.000000000</u>	<u>0</u>
<u>Trade Break</u>	<u>Exchange</u>	<u>ETB</u>	<u>null</u>	<u>null</u>	<u>null</u>

## 5. Additional Information

### 5.1. Public Website

The CAT Public Website, [www.catnmsplan.com](http://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 Billing, including links to SEC Rule 613, CAT Billing Technical Specifications, FAQs, training materials, and CAT Helpdesk contact information.

To subscribe to email notifications, visit the CAT NMS Plan [website](#).

Contact [help@finracat.com](mailto: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 CAT Technical Specifications for Billing Trade Details 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](http://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 Executing Brokers with a summary of changes set forth in the revised Technical Specifications, the go-live date for the changes and links to relevant information.
  - ♦ As the go-live date approaches, Industry Members will be able to prepare for changes using the revised CAT Technical Specifications for Billing Trade Details 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: Data Dictionary

Field Name	Data Type	Description
exchange	Choice	<b>National Securities Exchanges</b>
		AMER NYSE American Equities
		AMEROP NYSE American Options
		ARCA NYSE ARCA Equities
		ARCAOP NYSE ARCA Options
		BOX BOX Options 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 CHX
		EDGA Cboe EDGA Exchange
		EDGX Cboe EDGX Equities
		EDGXOP Cboe EDGX Options
		EMLD MIAX Emerald
		GEMX Nasdaq GEMX
		IEX Investor's Exchange
		ISE Nasdaq ISE
		LTSE Long Term Stock Exchange
		MEMX Members Exchange
		MEMXOP Members Options Exchange
		MIAMI Miami International Securities Exchange
		MRX Nasdaq MRX
		NOBO Nasdaq BX Options
		NOM Nasdaq Options
		NSDQ Nasdaq Stock
		NSX NYSE National
		NYSE The New York Stock Exchange
		PEARL MIAX PEARL
		PEARLEQ MIAX PEARL Equities
		PHLX Nasdaq PHLX Options
		PSX Nasdaq PHLX Equities
<u>SPHR</u> <u>MIAX Sapphire</u>		
marketCenterId	Choice	<b>FINRA Transaction Reporting Systems</b>
		C FINRA/Nasdaq Chicago Trade Reporting Facility
		D FINRA/Alternate Display Facility
		L FINRA/Nasdaq Trade Reporting Facility
		N FINRA/NYSE Trade Reporting Facility
O FINRA/OTC Reporting Facility		

Field Name	Data Type	Description																										
saleCondition	Text	<p><b>Sale Condition</b></p> <p>The <i>saleCondition</i> field will be populated with a concatenated value comprised of four distinct data elements derived from the Trade Report. Each data element will be assigned to a sequence number within the concatenated value:</p> <ul style="list-style-type: none"> <li>• &lt;seq. 1&gt;&lt;seq. 2&gt;&lt;seq. 3&gt;&lt;seq. 4&gt;</li> </ul> <p>Any <i>null</i> value outlined below will be substituted with space (ASCII decimal 32, hex 20) in the associated sequence placement. <u>For example: ,@ , in CSV represents the <i>saleCondition</i> field &lt;seq. 1&gt; being populated with '@', while &lt;seq. 2&gt;, &lt;seq. 3&gt;, and &lt;seq. 4&gt; are each respectively populated with <i>null</i> values represented at each sequence position with a separate space. Another example of ,@4 I, represents &lt;seq. 3&gt; populated with a <i>null</i> value represented as a space.</u></p> <p>For example, <i>saleCondition</i> is represented as follows in JSON:</p> <pre>, "saleConditon": "@42FZIK", , "saleConditon": "@4 W", , "saleConditon": "@ ", , "saleConditon": "@ ", , "saleConditon": "@ I",</pre> <p>In CSV, <i>saleCondition</i> is represented as:</p> <pre>@2TK, @4ZI, , @4 W, , @ , , @ I,</pre> <p><b>&lt;saleCondition sequence 1&gt;</b></p> <table> <tr> <td>@</td> <td>Regular settlement</td> </tr> <tr> <td>C</td> <td>Cash settlement</td> </tr> <tr> <td>N</td> <td>Next day settlement</td> </tr> <tr> <td>R</td> <td>Seller settlement</td> </tr> </table> <p><b>&lt;saleCondition sequence 2&gt;</b></p> <table> <tr> <td><i>null</i></td> <td>No exemption</td> </tr> <tr> <td>2</td> <td>Self Help Indicator</td> </tr> <tr> <td>3</td> <td>Intermarket Sweep - Outbound</td> </tr> <tr> <td>4</td> <td>Derivatively Price</td> </tr> <tr> <td>7</td> <td>Error Correction</td> </tr> <tr> <td>8</td> <td>Print Protection</td> </tr> <tr> <td>F</td> <td>Intermarket Sweep</td> </tr> <tr> <td>J</td> <td>Sub-penny Indicator</td> </tr> <tr> <td>V</td> <td>Contingent Indicator</td> </tr> </table>	@	Regular settlement	C	Cash settlement	N	Next day settlement	R	Seller settlement	<i>null</i>	No exemption	2	Self Help Indicator	3	Intermarket Sweep - Outbound	4	Derivatively Price	7	Error Correction	8	Print Protection	F	Intermarket Sweep	J	Sub-penny Indicator	V	Contingent Indicator
@	Regular settlement																											
C	Cash settlement																											
N	Next day settlement																											
R	Seller settlement																											
<i>null</i>	No exemption																											
2	Self Help Indicator																											
3	Intermarket Sweep - Outbound																											
4	Derivatively Price																											
7	Error Correction																											
8	Print Protection																											
F	Intermarket Sweep																											
J	Sub-penny Indicator																											
V	Contingent Indicator																											

Field Name	Data Type	Description
saleCondition		<b>&lt;saleCondition sequence 3&gt;</b>
		<i>null</i> N/A
		T Executed outside normal market hours
		Z Executed during normal market hours and reported late
		U Executed outside normal market hours and reported late
		<b>&lt;saleCondition sequence 4&gt;</b>
		<i>null</i> No unusual trade detail
		1 Stop stock (regular trade)
		A Acquisition
		B Bunched Trade
		D Distribution
		E Automatic execution (system)
		H Intraday trade detail (system)
		I Odd lot
		K Rule 155 Amex/Rule 127 NYSE
		P Prior reference price
		R Away from market sale
		S Split trade
		W Average price trade
		X Exercise of OTC option
		V Contingent Trade

## Appendix C: CAT Billing Trade Details File and Data Examples

This section includes examples for CAT Billing Trade Details Files and data. The examples are for illustrative purposes only. All CRD numbers, IMIDs and other identifying data used in the samples are purely fictional.

### C.1: CAT Billing Trade Details File and Data (JSON)

The tables below illustrate examples of CAT Billing Trade Details File and data in JSON format.

**Table 12: CAT Billing Trade Details File and data – Off-Exchange (JSON)**

CAT Billing Trade Details File with Off-Exchange Data (JSON)	
File	File Name
CAT Billing Trade Details File	invoice_trade_details_99999999_CBS20231112345_0001.json.bz2
File	File Contents
CAT Billing Trade Details File	<pre>{   "recType": "TRF",   "versionNumber": "1.10",   "executionTimestamp": 20230801093000.000000000,   "tradeReportTimestamp": 20230801093000.000000000,   "tradeReportDate": "2023-08-01",   "executionDate": "2023-08-01",   "eventReportDate": "2023-08-01",   "marketCenterId": "C",   "reportedSideCode": "B",   "symbol": "A123A",   "reportingExecutingMpid": "EFGH",   "reportingExecutingCRD": "99999999",   "contraExecutingMpid": "WSXZ",   "contraExecutingCRD": "88888888",   "executionQuantity": 1000.00000000,   "executionPrice": 10.00000000,   "controlNumber": "QAZW000011",   "contraControlNumber": "IKKN00012",   "reportingSideBranchSequenceIdentifier": "AERDSQ1234",   "contraSideBranchSequenceIdentifier": "AERDSQ1234",   "reversalFlag": "N",   "publishIndicatorCode": "Y",   "sideFlag": "ReportingSide",   "otcMultiplier": 1.0000,   "executedEquivalentShares": 1000.00000000,   "netExecutedEquivalentShares": 1000.00000000 }  {   "recType": "TRF",   "versionNumber": "1.10",   "executionTimestamp": 20230802093000.000000000,   "tradeReportTimestamp": 20230802093000.000000000,   "tradeReportDate": "2023-08-02",   "executionDate": "2023-08-02",   "eventReportDate": "2023-08-02",   "marketCenterId": "C",   "reportedSideCode": "B",   "symbol": "AZQW12",   "reportingExecutingMpid": "ABCD",   "reportingExecutingCRD": "99999999",   "executionQuantity": 2000.00000000,   "executionPrice": 10.00000000,   "controlNumber": "QAZW000012",   "reportingSideBranchSequenceIdentifier": "AERDSQ1235",   "reversalFlag": "N",   "publishIndicatorCode": "Y",   "sideFlag": "ReportingSide",   "otcMultiplier": 1.0000,   "executedEquivalentShares": 2000.00000000,   "netExecutedEquivalentShares": 2000.00000000 }  {   "recType": "TRF",   "versionNumber": "1.10",   "executionTimestamp": 20230802093000.000000000,   "tradeReportTimestamp": 20230802093000.000000000,   "tradeReportDate": "2023-08-02",   "executionDate": "2023-08-02",   "eventReportDate": "2023-08-</pre>

CAT Billing Trade Details File with Off-Exchange Data (JSON)	
	<pre> 02", "marketCenterId": "C", "reportedSideCode": "B", "symbol": "AZQW12", "reportingExecutingMpid": "ABCD", "reportingExecutingCRD": "99999999", "executionQuantity": 2000.00000000, "executionPrice": 10.00000000, "controlNumber": "QAZW000012", "reportingSideBranchSequenceIdentifier": "AERDSQ1235", "reversalFlag": "N", "publishIndicatorCode": "Y", "sideFlag": "ContraSide", "otcMultiplier": 1.0000, "executedEquivalentExecutionShares": 2000.00000000, "netExecutedEquivalentShares": 2000.00000000} {"recType": "TRF", "versionNumber": "1.10", "executionTimestamp": 20230803093000.00000000, "tradeReportTimestamp": 20230803093000.00000000, "tradeReportDate": "2023-08-03", "executionDate": "2023-08-03", "eventReportDate": "2023-08-03", "marketCenterId": "C", "reportedSideCode": "X", "symbol": "IKJ56", "reportingExecutingMpid": "EFGH", "reportingExecutingCRD": "99999999", "contraExecutingMpid": "EFGH", "contraExecutingCRD": "99999999", "executionQuantity": 3000.00000000, "executionPrice": 10.00000000, "controlNumber": "QAZW000013", "contraControlNumber": "QAZW000013", "reportingSideBranchSequenceIdentifier": "AERDSQ1235", "contraSideBranchSequenceIdentifier": "AERDSQ1235", "reversalFlag": "N", "publishIndicatorCode": "Y", "sideFlag": "ReportingSide", "otcMultiplier": 1.0000, "ExecutedEquivalentExecutionShares": 3000.00000000, "netExecutedEquivalentShares": 3000.00000000"} {"recType": "TRF", "versionNumber": "1.10", "executionTimestamp": 20230803093000.00000000, "tradeReportTimestamp": 20230803093000.00000000, "tradeReportDate": "2023-08-03", "executionDate": "2023-08-03", "eventReportDate": "2023-08-03", "marketCenterId": "C", "reportedSideCode": "X", "symbol": "IKJ56", "reportingExecutingMpid": "EFGH", "reportingExecutingCRD": "99999999", "contraExecutingMpid": "EFGH", "contraExecutingCRD": "99999999", "executionQuantity": 3000.00000000, "executionPrice": 10.00000000, "controlNumber": "QAZW000013", "contraControlNumber": "QAZW000013", "reportingSideBranchSequenceIdentifier": "AERDSQ1235", "contraSideBranchSequenceIdentifier": "AERDSQ1235", "reversalFlag": "N", "publishIndicatorCode": "Y", "sideFlag": "ContraSide", "otcMultiplier": 1.0000, "executedEquivalentExecutionShares": 3000.00000000, "netExecutedEquivalentShares": 3000.00000000"} </pre>

**Table 13: CAT Billing Trade Details File and data – On Exchange (JSON)**

CAT Billing Trade Details File with On Exchange Data (JSON)	
File	File Name
CAT Billing Trade Details File	invoice_trade_details_99999999_CBS20231112345_0001.json.bz2
File	File Contents
CAT Billing Trade Details File	<pre> {"recType": "Exchange", "versionNumber": "1.10", "eventTimestamp": "20230801093000.00000000", "tradeDate": "2023-08-01", "executionDate": "2023-08-01", "eventReportDate": "2023-08-01", "exchange": "NYNQ", "side": "Buy", "symbol": "A123A", "member": "EFGH", "memberCRD": "99999999"} </pre>

CAT Billing Trade Details File with On Exchange Data (JSON)

```

", "executionQuantity":1000.00000000, "executionPrice":10.00000000, "tradeID":"AWESQ1234",
"routedOrderID":"QASQ11234", "session":"EFGH1123", "routingParty":"EFGH", "eventType":"EOT",
"executedEquivalentShares":1000.00000000, "netExecutedEquivalentShares":1000.00000000"}
{"recType":"Exchange", "versionNumber":"1.10", "eventTimestamp":"20230802093000.00000000",
"tradeDate":"2023-08-02", "executionDate":"2023-08-02", "eventReportDate":"2023-08-
02", "exchange":"NYNQ", "side":"Buy", "symbol":"A123B", "member":"RFQ7", "memberCRD":"999999999
", "executionQuantity":2000.00000000, "executionPrice":10.00000000, "tradeID":"WSEN1234", "
routedOrderID":"WEDSEYR11234", "session":"RFQ71123", "routingParty":"RFQ7", "eventType":"EOT
", "executedEquivalentShares":1000.00000000, "netExecutedEquivalentShares":1000.00000000}
{"recType":"Exchange", "versionNumber":"1.10", "eventTimestamp":"20230801093000.00000000",
"tradeDate":"2023-08-03", "executionDate":"2023-08-03", "eventReportDate":"2023-08-
03", "exchange":"NOOP", "side":"Buy", "symbol":"A123CAWS202301200", "member":"AZA5", "memberCR
D":"999999999", "executionQuantity":3000.00000000, "executionPrice":10.00000000, "tradeID":
" MJUYHT1234", "quoteID":"REDFRTF11234", "eventType":"OT", "optionMultiplier":100.000000, "exe
cutedEquivalentShares":300000.00000000, "netExecutedEquivalentShares":3000.00000000"}
{"recType":"Exchange", "versionNumber":"1.10", "eventTimestamp":"20230801093000.00000000",
"tradeDate":"2023-08-03", "executionDate":"2023-08-03", "eventReportDate":"2023-08-
03", "exchange":"NOOP", "side":"Buy", "symbol":"A123CAWS202301200", "member":"AZA5", "memberCR
D":"999999999", "executionQuantity":3500.00000000, "executionPrice":10.00000000, "tradeID":
" MJUYHT1234", "mootLinkIdentifier":"REWQTHWS", "eventType":"OT", "optionMultiplier":100.0000
00, "executedEquivalentShares":350000.00000000, "netExecutedEquivalentShares":35000.000000
000"}
{"recType":"Exchange", "versionNumber":"1.10", "eventTimestamp":"20230801093000.00000000",
"tradeDate":"2023-08-04", "executionDate":"2023-08-04", "eventReportDate":"2023-08-
04", "exchange":"NZOOP", "side":"Buy", "symbol":"A123DAWS20230110", "member":"XYX1", "memberCR
D":"999999999", "executionQuantity":4400.00000000, "executionPrice":10.00000000, "tradeID":
" VFREDWS234", "routedOrderID":"MJUHTRF11234", "session":"XYX11123", "routingParty":"XYX1", "ev
entType":"OT", "optionMultiplier":100.000000, "executedEquivalentShares":4400000.00000000,
"netExecutedEquivalentShares":4400000.00000000"}

```



## C.2: CAT Billing Trade Details File and Data (CSV)

The tables below illustrate examples of CAT Billing Trade Details File and data in CSV format.

**Table 14: CAT Billing Trade Details File and data – Off-Exchange (CSV)**

CAT Billing Trade Details File with Off-Exchange Data (CSV)	
File	File Name
CAT Billing Trade Details File	invoice_trade_details_99999999_CBS20231112345_0001.csv.bz2
File	File Contents
CAT Billing Trade Details File	LINE 1 TRF,1.10,20230801093000.00000000,20230801093000.00000000,2023-08-01,2023-08-01,2023-08-01,C,B,A123A,EFGH,99999999,WSXZ,88888888,1000.00000000,10.00000000,QAZW000011,IKKN00012,AERDSQ1234,AERDSQ1234,N,Y,,ReportingSide,1.0000,1000.0000000000,1000.00000000
	LINE 2 TRF,1.10,20230802093000.00000000,20230802093000.00000000,2023-08-02,2023-08-02,2023-08-02,C,B,AZQW12,ABCD,99999999,,,2000.00000000,10.00000000,QAZW000012,,AERDSQ1235,,N,Y,,ReportingSide,1.0000,2000.00000000,2000.00000000
	LINE 3 TRF,1.10,20230802093000.00000000,20230802093000.00000000,2023-08-02,2023-08-02,2023-08-02,C,B,AZQW12,ABCD,99999999,,,2000.00000000,10.00000000,QAZW000012,,AERDSQ1235,,N,Y,,ContraSide,1.0000,2000.00000000,2000.00000000
	LINE 4 TRF,1.10,20230803093000.00000000,20230803093000.00000000,2023-08-03,2023-08-03,2023-08-03,C,X,IKJ56,EFGH,99999999,EFGH,99999999,3000.00000000,10.00000000,QAZW000013,QAZW000013,AERDSQ1235,AERDSQ1235,N,Y,,ReportingSide,1.0000,3000.00000000,3000.00000000
	LINE 5 TRF,1.10,20230803093000.00000000,20230803093000.00000000,2023-08-03,2023-08-03,2023-08-03,C,X,IKJ56,EFGH,99999999,EFGH,99999999,3000.00000000,10.00000000,QAZW000013,QAZW000013,AERDSQ1235,AERDSQ1235,N,Y,,ContraSide,1.0000,3000.00000000,3000.00000000

**Table 15: CAT Billing Trade Details File and data – On Exchange (CSV)**

CAT Billing Trade Details File with On Exchange Data (JSONCSV)		
File	CAT Billing Trade Details File Name	
CAT Billing Trade Details File	invoice_trade_details_99999999_CBS20231112345_0001.csv.bz2	
File	File Contents	
CAT Billing Trade Details File	LINE 1	Exchange, 1.10, 20230801093000.000000000, 2023-08-01, 2023-08-01, 2023-08-01, NYNQ, Buy, A123A, EFGH, 99999999, 1000.00000000, 10.00000000, AWESQ1234, ,, QASQ11234, EFGH1123, EFGH, , EOT, , 1000.00000000, 1000.00000000
	LINE 2	Exchange, 1.10, 20230802093000.000000000, 2023-08-02, 2023-08-02, 2023-08-02, NYNQ, Buy, A123B, RFQ7, 99999999, 2000.00000000, 10.00000000, WSEN1234, ,, WEDSEYR11234, RFQ71123, RFQ7, , EOT, , 1000.00000000, 1000.00000000
	LINE 3	Exchange, 1.10, 20230803093000.000000000, 2023-08-03, 2023-08-03, 2023-08-03, NOOP, Buy, A123CAWS202301200, AZA5, 99999999, 3000.00000000, 10.00000000, MJUYHT1234, ,, REDFRTF11234, , , , , OT, 100.000000, 300000.00000000, 300000.00000000
	LINE 4	Exchange, 1.10, 20230803093000.000000000, 2023-08-03, 2023-08-03, 2023-08-03, NOOP, Buy, A123CAWS202301200, AZA5, 99999999, 3500.00000000, 10.00000000, MJUYHT1234, , , , , , REWQTHWS, OT, 100.000000, 350000.00000000, 350000.00000000
	LINE 5	Exchange, 1.10, 20230804093000.000000000, 2023-08-04, 2023-08-04, 2023-08-04, NZOOP, Buy, A123DAWS20230110, XYX1, 99999999, 4400.00000000, 10.00000000, VFREDWS234, ,, MJUHTRF11234, XYX11123, XYX1, , OT, 100.000000, 4400000.00000000, 4400000.00000000