

Consolidated Audit Trail

Customer and Account Information System (CAIS)

Full CAIS Specification

2/9/21

Agenda

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- Client Support

CAIS Specification Goals

- Support Plan requirements for the collection and use of Customer and Account data
 - Collect data
 - Process and validate data
 - Make data available to Regulators
- Facilitate the ability of Reporters to provide timely, accurate Customer and Account data
 - Leverage existing Reporter capabilities
 - Provide operating flexibility for Reporters
 - Provide validation feedback and error correction tools to maximize data quality
- Protect sensitive Customer and Account data
 - Input separation of identifiers and underlying data
 - Replacement of Sensitive Identifiers with CAT Customer ID that can't be reverse engineered
 - No PII data returned to Reporters

CAT Customer and Account Information

- SEC Rule 613 and the CAT NMS Plan require that certain customer and account information be reported to CAT.
- Customer and account information, with the exception of the Plan Processor assigned CAT Customer ID (“CCID”) and the Firm Designated ID (“FDID”), are defined as Personally Identifiable Information (“PII”) under the Plan, and accordingly must be collected and stored separately from the transaction data in CAT.



Key Concepts – Customers vs. Accounts

1. Trading Accounts – addressed in the NMS Plan and represented by an Industry Member assigned Firm Designated ID (FDID). This can represent firm or CAT Customer accounts.
2. CAT Customers – defined in Rule 613 and represented in CAT by the Plan Processor assigned CAT Customer ID (CCID). The CCID is used to identify a single CAT Customer trading across all accounts and all broker-dealers.

Rule 613(j)(3) defines a CAT Customer as including:

- The account holder(s) of the account at a registered broker-dealer originating the order;
- Any person from whom the broker-dealer is authorized to accept trading instructions for such account, if different from the account holder(s).

A CAT Customer can have more than one trading account, and a trading account can have more than one CAT Customer.

Key Concepts – Customers vs. Accounts

Account Data includes:

- Account Type – multiple value array for all applicable account types
- Customer Type – multiple value array for all applicable types of customers related to account
- Account Address – 1 required, up to 3 additional optional
- Account Name
- Prime Broker ID or Bank Depository ID
- Clearing Broker ID
- Branch Office CRD
- Registered Representative CRDs – delimited list of all applicable CRDs
- LTIDs

Account and Customer Associations includes:

- Customer's Role on the Account
- Has Discretion Indicator
- Start/End Dates

CAT Customer Data includes:

- Transformed Identifier (TID), in place of Sensitive Identifiers
- Customer Name
- Start/End Dates
- Year of Birth for Natural Person type Customers
- EIN and LEI for Legal Entity type Customers
- Customer Address

Account and Customer Types

Account Type

- Reported on the FDID record
- Representation of the type or types of account the FDID represents
- All applicable values must be included in the array
- For example, an account owned by the firm designated as a market-making account would be reported with both the FIRM and MARKET values:
 - “accountType”: [“FIRM”, “MARKET”]

Customer Type

- Reported on the FDID record
- Representation of the type or types of **all** CAT Customers associated to the FDID
- All applicable values must be included in the array
- For example, an account with three customers - one who is known by the Industry Member as an accredited investor, one who is an employee or associated person of the Industry Member, and one who is a natural person customer that does not have a US Tax Identifier – would be reported with the ACCREDITED, EMPLOYEE, and FOREIGN values:
 - “customerType”: [“ACCREDITED”, “EMPLOYEE”, “FOREIGN”]

CAT Customer Role

- Definition of CAT Customer includes both account holder and authorized traders
- Association of Customers to FDID records reported in the `fdidCustomerList` as part of the FDID record
- Role attribute is the representation of the type of role the CAT Customer has on the account, with 4 values
 - AUTHREP – An Authorized Trader who is an employee of the reporting Industry Member who has authority to place orders for the account
 - AUTH3RD – An Authorized Trader who is not a holder, nor an employee of the reporting Industry Member who has authority to place orders for the account
 - TRDHOLDER – Holder of the Account that also has authorization to trade on the Account
 - NTHOLDER – Holder of the Account that does not have authorization to trade on the Account
- Each associated customer will have one and only one active associated role for an account
- A single customer may have differing roles for differing account

CCID Alternative

On March 17, 2020, the SEC approved the CCID Alternative set forth in the Participant's Exemptive Relief Request related to Customer and Account Information.

The CCID Alternative allows the Plan Processor to generate a CCID using a two step transformation process that avoids having SSNs/ITINs reported to or stored in the CAT.*

Step One: CAT Reporters transform the SSN/ITIN to an interim value as per the instructions of the Plan Processor. This transformed value (Transformed Identifier or TID), and not the SSN/ITIN, is submitted to the CAT CCID Subsystem.

Step Two: The CAT CCID Subsystem performs a second transformation to create the globally unique CCID for each Customer that is unknown to, and not shared with, the original CAT Reporter.

*The same process will be applied to Legal Entity and Foreign identifiers provided to CAIS.

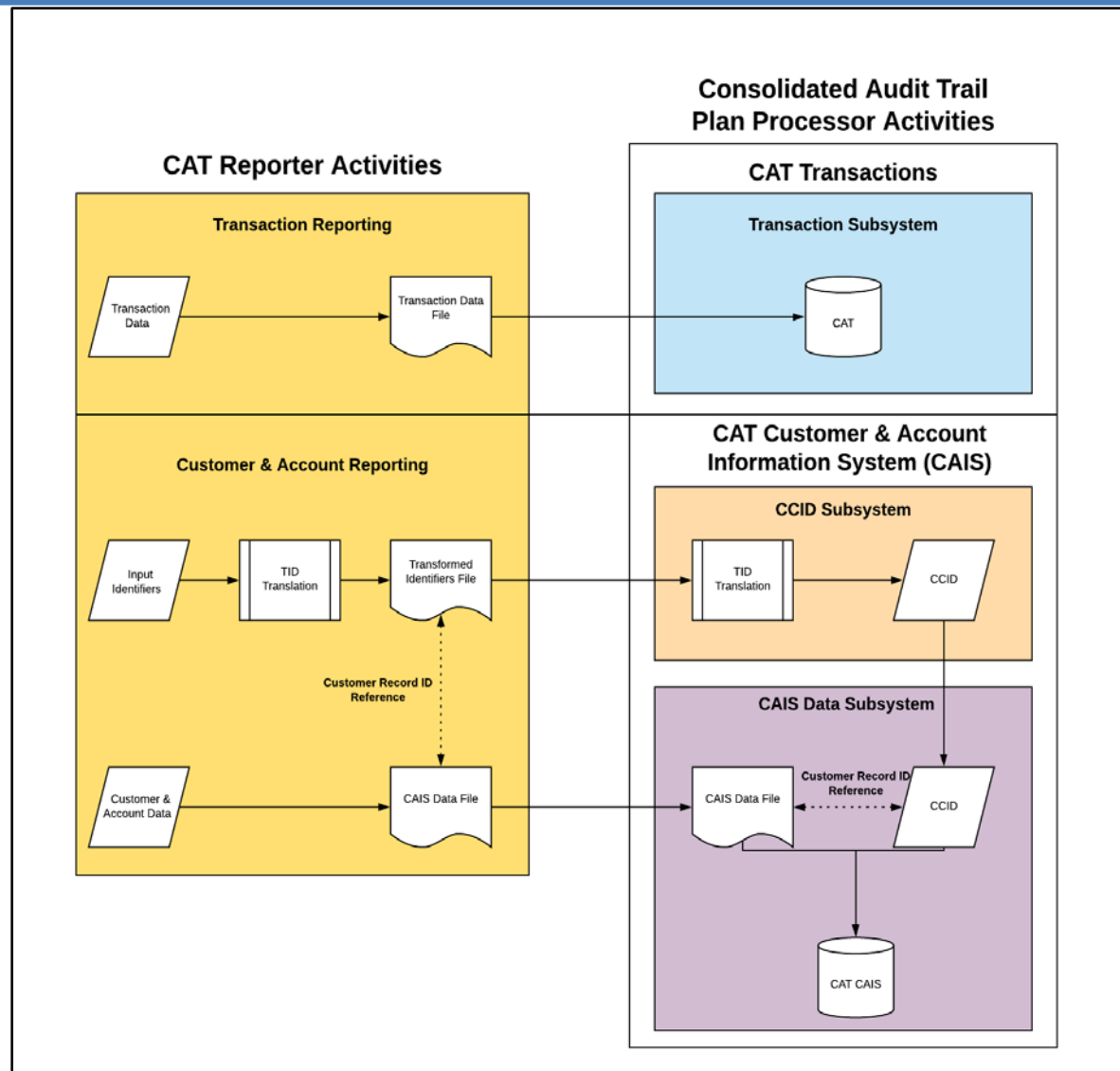
Transformed Identifiers (TID)

Tax Identifiers provide the basis for establishing a unique CCID for both natural persons and legal entities.

- Social Security Number and Individual Taxpayer Identification Number are considered Sensitive Identifiers and, pursuant to the CCID Alternative, are never transmitted to CAT. Rather, the hashed TID is submitted to CAT by the CAT Reporter.
- Employer Identification Number (EIN) for a legal entity is not covered by the CCID Alternative. CAT Reporters will be required to report the EIN to CAT in two ways.
 - (1) as a TID*, and
 - (2) the actual EIN as plain text (as required by the Plan).
- For non-U.S. (foreign) accounts holders, eligible foreign identifiers include National Registration or Tax Identifier, Country of Domicile and Passport Number, Permanent Resident Identifier, or LEI. Foreign identifiers should be converted to TIDs (per the specification), and the TID submitted to CAT.

High Level Architecture

- Separation of CAIS versus the Transaction Reporting System
- Sensitive Identifier Transformation – Can't be reverse engineered
- No Sensitive Identifiers (SSNs/ITINs) are sent to CAIS or stored in CAIS
- Identifiers and Related Account Information are sent as paired files into separate systems
- No PII ever returned to Reporters



CAIS Reporting – File Types

Transformed Identifier Files and CAIS Data Files must be submitted as paired files

| File Name | Description |
|---|--|
| Transformed Identifiers (sent to CCID Subsystem) | <ul style="list-style-type: none">• Customer identification – Taxable identifiers (SSN, ITIN, EIN, Foreign) are hashed by Reporters to create a Translated Identifier (TID)<ul style="list-style-type: none">• For SFTP and Web-based files, Reporter responsible for hashing• For Web-based data entry, a browser-based hashing algorithm will be provided to assist in the creation of the TID by reporters• Customer Record ID pointer provides link between Transformed Identifiers entry and CAIS Data entry for Customer; Customer Data and Transformed Identifier never in same file together |
| CAIS Data (sent to CAIS Data Subsystem) | <ul style="list-style-type: none">• Account details<ul style="list-style-type: none">• FDID in place of Account Number• Customer and Account Types• LTID data• Association of Customer to Account by use of Customer Record ID pointer• Customer details – Natural Person and Legal Entity<ul style="list-style-type: none">• Underlying customer detail – Name, address, YOB, etc.• Other plain text identifiers – EIN, LEI |

Access and Entitlement

- Reporter Authentication -- No new authentication required if established for Transaction or LTID reporting
- Account Administrator -- No new Account Administrator required if established for Transaction or LTID reporting
- Entitlements
 - Entitlements for Transaction reporting and CAIS reporting may be different
 - No separate entitlements for reporting Customer or Account data
 - Certification requirements for Customer data reporting to CAIS are under consideration
- Information Security
 - [Security of CAT Data Webinar](#) available at catnmsplan.com site
 - Leverages authentication and entitlement controls of Transaction reporting
 - FDIDs mask account numbers and Relationship or Entity IDs
 - Plan Processor assigned CCIDs cannot be reverse engineered back to sensitive identifiers
 - SFTP reporting utilizes only private lines and data encrypted in transit and at rest
 - Web-based reporting data encrypted in transit and at rest

Three CAIS Environments

| Environment | Functionality | Data | Purpose |
|-------------------|---|--|---|
| Production | Full production functionality. | All data submitted to the Production environment by Industry Members. | Provision of production data as required by the CAT NMS plan. |
| Production Mirror | Full production-equivalent functionality. | All data submitted to the Production Mirror environment by Industry Members. | Allows for the submission of data to a production-equivalent environment. This may be used to test code enhancements or corrections prior to providing such data to the production environment. |
| Industry Test | Functionality that is currently in the development and testing phase and has not yet been released to production. | All data submitted to the Industry Test environment by Industry Members. | User testing of new functionality. |

- Beginning January 2022, Industry Test environment will be available with full Customer and Account Phase functionality
- Production Mirror will remain with LTID Phase functionality for any additional testing against current release functionality
- CAIS Production Mirror environment to be available starting April 26, 2021


CAIS Reporting

- CAIS Reporting Options
 - Machine-to-machine – two SFTP sites – one for Data file, one for Transformed Identifiers file
 - Manual file uploads via CAIS Reporter Portal
 - Manual entry via CAIS Reporter Portal
- File-based reporting in JSON structure only
- CAIS uses CRD, not IMID, to identify Reporters
- Reporters may submit full or delta files at their discretion:
 - Full files contain all Customer and Account records
 - Delta files contain only records with changes
- When submitting or changing an Account, all Account information and the Customer information associated to that account must be included
- Transformation of sensitive identifiers is required
- File level and record level validation will be performed
- PII data submitted by Reporters **will not be** viewable by the Reporter after submission to CAIS




CAIS Error Notification and Repair

- For data submitted by 8:00AM ET, errors will be identified by CAT CAIS and provided to Industry Members by no later than 5:00PM ET on the Trading Day such information was submitted to CAT.
- Once error feedback is available, repairs can be made immediately.
- All repairs must be made by 5:00PM ET on the third Trading Day after the account information became available to the Industry Member. Repairs received after the repair deadline will be accepted but considered late.

Key:

 Activity due no later than this time period

Processing Timeline

| CAIS Submissions Data | T+1 | | | | T+2 | | | | T+3 | | | |
|---|---|------|---|--------|-----------|------|-----------|--------|-----------|------|--|--------|
| | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. |
| Initial Data Submission from Industry Members |  | | | | | | | | | | | |
| Communication of Initial Syntax and Semantic Errors | | |  | | | | | | | | | |
| Resubmission of Syntax and Semantic Errors Due | | | | | | | | | | |  | |

CAIS Error Notification and Repair

- File-based errors and record-based errors will be returned to both the Reporter and Submitter
 - File-based errors will result in no updates to records contained in the file
 - Record-based errors will reject, but all other records without errors will process
 - Appropriate information, such as error messages, rejection IDs, record IDs, and FDID will be provided to Reporters to facilitate error corrections
 - Each submission will have three feedback files – Data Feedback file, Transformed Identifiers Feedback file, and Inconsistencies Feedback file
- CAIS Reporter Portal will maintain reporting status and statistics
 - **File Status:** available via SFTP and the CAT CAIS Reporter Portal, indicates the acceptance or associated errors with a submission file.
 - **Reporting Statistics:** available via the CAT CAIS Reporter Portal, daily summary statistics representing reporting activity and errors for prior submissions. Error Rate is also included.
 - **Error Feedback:** available via SFTP and the CAT CAIS Reporter Portal, errors found during processing will be made available, including error code, rejection ID, FDID, and associated record ID(s) from the submission file.
 - **Corrections Feedback:** available via the CAT CAIS Reporter Portal, information is provided for the repair status of all corrections. When an error has been corrected, the updated status will be reflected.
 - **Inconsistencies Feedback:** available via SFTP and the CAT CAIS Reporter Portal, Material and Minor Inconsistencies found during processing will be made available, including inconsistency code, event ID, and associated Customer Record ID from the submission file.

Feedback and Error Correction Availability

| Processing Stage | Feedback | Anticipated Delivery | Delivery No Later Than |
|--------------------------------|---|--|------------------------------------|
| File Acknowledgement | File Acknowledgement Status | Within 10 minutes of File Submission | 1 hour of File Submission |
| File Integrity | File Integrity Error Status or File Integrity Passed Status | Within 30 minutes of File Submission | 2 hours of File Submission |
| Data Validation | Data Errors including syntax and semantic errors | Within 1 hour of File Integrity Feedback | 4 hours of File Integrity Feedback |
| Inconsistencies – Submission | Customer Data Inconsistencies | Within 1 hour of Data Validation | 6 hours of File Integrity Feedback |
| Inconsistencies – Scan Results | Inconsistency Scan Results | Nightly | By 8 a.m. Eastern T+1 |

CAIS Data Inconsistencies

- There are two categories of Inconsistencies – Material and Minor
 - Material Inconsistencies require action by the reporting firm no later than T+3 at 5 p.m. Eastern after notification of the inconsistency. Closure of Material Inconsistencies is achieved by reporting the same CAT Customer with current data and the Update Notification attribute set as true.
 - Minor Inconsistencies are provided to the firm for information purposes only; no further action is required from the firm.

- Inconsistencies may be identified for the same CAT Customer record due to:
 - Changes in data reported by a single firm over time; OR
 - Differences in data reported by two or more firms

Material Inconsistency Procedure

- If a Material Inconsistency is identified between two Reporters, the Reporter submission triggering the inconsistency ('Triggering Reporter') is first required to Confirm/Repair data
- If they confirm data as accurate OR repair data in such a way that Material Inconsistencies still exist against another Reporter, the other Reporter ('Impacted Reporter') will then be notified of the Material Inconsistency and asked to Confirm/Repair data


Update Notification

- Reporters may confirm intentional updates to their **previously accepted** Customer records within the submission of the updated customer data, noting they intended to change **Material Attributes** so that the update bypasses their own further confirmation or change procedures – in this instance, the CAT Reporter will be notified similar to a **Minor Inconsistency** from the update so they are aware of the change, but do not need to take further action
- This Update Notification is also used to close a Material Inconsistency when re-reporting Customer data to CAT




CAIS Inconsistency Notification and Repair – Triggering Firm

- For data submitted by 8:00AM ET, inconsistencies will be identified by CAT CAIS and provided to Industry Members by no later than 5:00PM ET on the Trading Day such information was submitted to CAT.
- Once feedback is available, repairs can be made immediately.
- All repairs must be made by 5:00PM ET on the third Trading Day after the account information became available to the Industry Member. Repairs received after the repair deadline will be accepted but considered late.

Key:

 Activity due no later than this time period


Processing Timeline

| Triggering Firm Inconsistencies, Identified in Submission Processing | T+1 | | | | T+2 | | | | T+3 | | | |
|--|--|------|---|--------|-----------|------|-----------|--------|-----------|------|---|--------|
| | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. |
| Initial Data Submission from Industry Members |  | | | | | | | | | | | |
| Communication to triggering reporter of Inconsistencies identified during a data submission | | |  | | | | | | | | | |
| Confirmation of data by triggering reporter to close Inconsistencies identified during a data submission | | | | | | | | | | |  | |



CAIS Inconsistency Notification and Repair – Impacted Firm

- Nightly scan feedback of data present in the system will be provided no later than 8:00AM ET to Impacted Firms
- Once feedback is available, repairs can be made immediately.
- All repairs must be made by 5:00PM ET on the third Trading Day after the account information became available to the Industry Member. Repairs received after the repair deadline will be accepted but considered late.

Key:

 Activity due no later than this time period

Processing Timeline

| Impacted Firm Inconsistencies, Identified in Nightly Scanning | T+1 | | | | T+2 | | | | T+3 | | | |
|--|--|------|-----------|--------|-----------|------|-----------|--------|-----------|------|---|--------|
| | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. | 8:00 a.m. | Noon | 5:00 p.m. | 9 p.m. |
| CAIS Scans data present in the system as of 5 p.m. the prior day, and notification to Impacted Firms of Cross Firm Inconsistencies |  | | | | | | | | | | | |
| Confirmation of data by impacted reporter to close Inconsistencies identified during nightly scanning | | | | | | | | | | |  | |

Data Inconsistency Attributes

| Attribute | Customer Record Type | Material/Minor Inconsistency Validation | Update Notification Eligible |
|---|----------------------|---|------------------------------|
| Customer Record Type (i.e., Natural Person or Legal Entity) | N/A | Material | Yes |
| Customer Start Date | Both | N/A | No |
| First Name | Natural Person | Material - in combination with Last Name | Yes |
| Middle Name | Natural Person | N/A | No |
| Last Name | Natural Person | Material - in combination with First Name Minor - in isolation | Yes |
| Name Suffix | Natural Person | N/A | No |
| Year of Birth | Natural Person | Material | Yes |
| Legal Name | Legal Entity | N/A | No |
| Address Line 1 | Both | N/A | No |
| Address Line 2 | Both | N/A | No |
| Address Line 3 | Both | N/A | No |
| Address Line 4 | Both | N/A | No |
| City | Both | N/A | No |
| Region Code | Both | N/A | No |
| Country Code | Both | N/A | No |
| Postal Code | Both | N/A | No |
| EIN | Legal Entity | Material | No |
| LEI | Legal Entity | N/A | No |
| LTID | Both | N/A | No |

Data Feedback and Interface Methods

| CAT Data Submission and Feedback | Category | CAIS SFTP | CAT Reporter Portal – CAIS | CAT Reporter Portal |
|--|----------------|-----------|----------------------------|---------------------|
| Submission of CAT CAIS/Identifiers files | Submission | ✓ | ✓ | |
| Resubmission of Rejected Files/Records, Corrections and Attestations | Submission | ✓ | ✓ | |
| Interactive CAT Reportable Customer and Account Entry | Submission | | ✓ | |
| File Status Retrieval | Feedback | ✓ | ✓ | |
| Reporting Statistics | Feedback | | ✓ | |
| Error Feedback | Feedback | ✓ | ✓ | |
| Data Inconsistencies Feedback | Feedback | ✓ | ✓ | |
| CAIS System Status and Announcements | Feedback | | ✓ | |
| FDID Reconciliation Report | Feedback | | ✓ | |
| Account Maintenance | Administration | | | ✓ |
| Establishment of Reporting Relationships | Administration | | | ✓ |

CAIS Client Support

- CAIS User Guides
- CAIS Portal Help
- FINRA CAT Help Desk will have dedicated CAIS Support

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 phone keypad.
 - An audio prompt will indicate that your line has been unmuted.

FINRA CAT Helpdesk

Questions may be directed to the FINRA CAT Helpdesk at 888-696-3348 or help@finracat.com