
Monthly CAT Update

February 15, 2024

Agenda

- Transaction Subsystem
- CAIS Subsystem
- CAT Billing
- Compliance
- Upcoming Industry Webinars and Other Updates
- Q&A
- Appendix- Transaction Production Statistics

Transaction Subsystem Updates

New and Updated Transaction FAQs

- ▶ No new Transaction [FAQs](#).
- ▶ Three Transaction [FAQs](#) were updated:
 - FAQs [F5](#), [F6](#) and [F7](#) were updated to reflect the exemptive relief issued by the SEC on November 2, 2023 with an effective date of November 20, 2023.

Technical Specifications and Reporting Scenarios

- ▶ [V4.1.0r1](#) of the Phase 2d Industry Member CAT Reporting Technical Specifications (clean and redlined) were published on January 26, 2024.
 - Corrected minor typos in the JSON examples in Section 7.5.2.
- ▶ There were no updates to the Reporting Scenarios document.

Other Updates

- ▶ [The Order and Quote Routing Field Mapping between CAT and Exchanges](#) document was updated to reflect the addition of MIAX Sapphire to the Miami Exchange Family.
- ▶ On February 13, 2024, the Plan Participants submitted to the SEC a request for [exemptive relief](#) from certain provisions of the CAT NMS Plan relating to responses to requests for quotes (RFQs) provided in standard electronic format (e.g., FIX) that are 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), to the extent such responses are considered “orders” reportable pursuant to Rule 613(j)(8). This request amended and replaced the request previously submitted to the SEC on May 23, 2023.

2024 Industry Member Releases (Transaction)

Scope and Schedule

<p>2024 – Report Card by Processing Date Release</p> <p>Production Release – 2/15/2024</p>	<p>2024 – FDID Validation to Production Release</p> <p>Production Release – 2/26/2024</p>	<p>2024 – First Quarter Release Spec Publication – 11/30/2023</p> <p>Industry Test Release – 1/22/2024</p> <p>Production/Production Mirror Release – 2/5/2024</p>	<p>2024 – Second Quarter Release Spec Publication – 11/30/2023</p> <p>Industry Test Release – 4/15/2024</p> <p>Production/Production Mirror Release – 4/29/2024</p>
<p>Transaction Report Cards</p> <ul style="list-style-type: none"> Generate Report Cards by Processing Date starting with the Report Cards covering January 2024 	<p>CAIS-related Validations & Statistics</p> <ul style="list-style-type: none"> Validate FDID against CAIS data Daily statistics reflecting FDID errors Provide a new linkage summary feedback file containing missing or invalid FDIDs <p><i>This functionality is currently available in the Industry Test Environment</i></p> <ul style="list-style-type: none"> Deliver list of FDIDs accepted to Transaction Production that are not in CAIS Production 	<p>New <i>handlingInstructions</i> Values</p> <ul style="list-style-type: none"> Add new 'AUC', 'APCL', 'APCM' <i>handlingInstructions</i> values 	<p>Removal of <i>handlingInstructions</i> Value</p> <ul style="list-style-type: none"> Remove 'IDX' <i>handlingInstructions</i> value

2024 Industry Member Releases (Transaction)

Scope and Schedule

2024 – FDID Validation Report Card Release

Production Release – 7/15/2024

Transaction Report Cards

- Generate Report Cards with FDID Validation Errors starting with the Report Cards covering June 2024

2024 – Third Quarter Release

Spec Publication – 7/31/2023 & 11/30/2023

Industry Test Release – 5/13/2024

Production/Production Mirror Release –
7/29/2024

July 2023 Spec Publication v.4.0.0 r20

- Add new quote events to support reporting of RFQ responses for Options (MONQ, MORQ, MOQR, MOQM, and MOQC) and Multi-Leg (MLNQ, MLRQ, MLQS, MLQR, MLQC, and MLQM)
- Add new fields to equity quote events
 - *RFQID* to MENQ, MERQ, MEQR, MEQM, and MEQC
 - *RFQFlag* to MENQ and MEQR
 - *relativePrice* to MENQ, MERQ, MEQR, and MEQM
- Add new *destinationType* value of 'S'
- New Error Codes and Validations

November 2023 Spec Publication v.4.1.0 with Additional Enhancements based on Industry Feedback

- Add new *validUntilDuration* field
- Bifurcate *relativePrice* field into *bidRelativePrice* and *askRelativePrice* for equity and option quote events
- Add *senderType* field to quote received events
- Update Error Codes 2251 and add Error Code 2253

Remove handlingInstructions

- Remove 'ND' *handlingInstructions* value

Viewing FDID Validation Errors on the Reporter Portal

▶ FDID validation statistics are posted on the Reporting Summary tab

CAT Reporter Portal | 10:03 AM ET 02/15/2024 | **THIS IS A TEST ENVIRONMENT** (Contains schema for future release. not intended for production use) | Perspective Reporter

Reporting Feedback

Reporting Summary | Event Type Counts | Error Code Counts | File Status | Counterparty Statistics | Late Statistics

Processing Date
 Trade Date
 Product Type: ALL
 IMID: ZZZZ

2/7/2024

[Export](#)

Compliance Error Rate: **25.2948%** The CAT NMS Plan has set the initial Maximum Compliance Error Rate at 5%. Please refer to [Compliance Glossary](#) for rate calculation details.

File Statistics

Files Received	Files Accepted	Files Rejected	Invalid Files
6	6	0	0

Submitted Events

Total Processed Events	Total Accepted	Accepted Late	Late Rate
126,686	126,686	0	0.0000%

Accepted Events

Accepted OOS Errors	Repaired OOS Errors	Initial OOS Rate	Adjusted OOS Rate	Accepted FDID Errors	Repaired FDID Errors	Initial FDID Error Rate	Adjusted FDID Error Rate
0	0	0.0000%	0.0000%	48,471	0	38.2607%	38.2607%

FDID Validation Error Breakdown

- ▶ FDID validation errors are broken down by error code on the Error Code Counts tab

Reporting Feedback
 Error Corrections
 Export to CAT
 Reporting Relationships
 TS Order Types
 Contact Management
 Invoices

Reporting Feedback

Reporting Summary

Event Type Counts

Error Code Counts

File Status

Counterparty Statistics

Late Statistics

Processing Date

Trade Date

Product Type

IMID

2/7/2024

ALL

ZZZZ

APPLY

RESET

Error Code Counts (8) Export

Date	CAT Reporter IMID	Submitter ID	Error Code	Error Type	Error Reason	Error Count*
02/07/2024	ZZZZ	99999999	395	LINKAGE	Early reported event	513
02/07/2024	ZZZZ	99999999	396	LINKAGE	Incorrect timeInForce for related Primary Event	1
02/07/2024	ZZZZ	99999999	3501	LINKAGE	Secondary Event – Order Key, Trade Key, Quote Key, Fulfillme...	31
02/07/2024	ZZZZ	99999999	3701	LINKAGE	firmDesignatedID not found	48043
02/07/2024	ZZZZ	99999999	3702	LINKAGE	firmDesignatedID not valid on Event Date	34
02/07/2024	ZZZZ	99999999	3703	LINKAGE	firmDesignatedID in buyDetails not found	206
02/07/2024	ZZZZ	99999999	3705	LINKAGE	firmDesignatedID in sellDetails not found	188
02/07/2024	ZZZZ	99999999	8003	LINKAGE	Matching routedOrderID/routedQuoteID cannot be found	32055

FDID Validation Error Details (1 of 2)

- ▶ FDID validation error details are posted to the Error Summary tab

CAT Reporter Portal | 3:15 PM ET 02/15/2024 | THIS IS A TEST ENVIRONMENT (Contains schema for future release. not intended for production use) | Perspective Reporter

Reporting Feedback | Error Corrections | Report to CAT | Reporting Relationships | ATS Order Types | Contact Management | Invoices

Error Corrections

Error Summary | Error Search

Processing Date Trade Date | Product Type | IMID

12/20/2023 | ALL | YYYY | **APPLY** | **RESET**

Error Summary (7)

[Export](#)

Date	CAT Reporter IMID	Submitter ID	Error Type	Repair Status	Repair Type	Error Code	Error Reason	Group Repair Eligible	Error Count*
12/20/2023	YYYY	88888888	LINKAGE	U		3501	Secondary Event – Order Key, Trade Ke...		180
12/20/2023	YYYY	88888888	LINKAGE	U		3502	Trade Event – Order not found		7
12/20/2023	YYYY	88888888	LINKAGE	U		3503	Fulfillment Event – Order not found		917
12/20/2023	YYYY	88888888	LINKAGE	U		3504	Aggregated Order – Customer/Client o...		76
12/20/2023	YYYY	88888888	LINKAGE	U		3701	firmDesignatedID not found		33
12/20/2023	YYYY	88888888	LINKAGE	U		8003	Matching routedOrderID/routedQuotel...		831
12/20/2023	YYYY	88888888	NAMED	U		5004	Named - Matching tapeTradeID cannot...		163

FDID Validation Error Details (2 of 2)

- ▶ *Reminder:* No error details will be displayed on the Error Summary tab if the Industry Member has more than 10,000 total errors per IMID per processing date across all linkage types.
- ▶ Effective February 26, 2024 in the Production Environment, all FDID Validation Errors will be included with other Linkage Feedback.
 - Linkage Feedback is available on the Download Feedback tab.

Additional Information: 2024 FDID Validation Release

- ▶ Delivery of a one-time list of FDIDs that were accepted to the Transaction Production Environment on events with an event date on or after June 12, 2022 through February 26, 2024 that are not in the CAIS Production Environment
 - Available in CSV format for 10 days via the Transaction Reporter Portal
 - Posted to the CAT Reporter CRD no later than 5 pm ET on February 27, 2024
- ▶ Feedback File Name Format:
 - <CAT Reporter CRD>_FDIDsinTransactionNotinCAIS_<File Generation Date>_<File Sequence Number>.csv.bz2
 - For example: 9999_FDIDsinTransactionNotinCAIS_20240226_01.csv.bz2
- ▶ File Sample:

firmDesignatedID
FDID1
FDID2
FDID3

Transaction Reporter Portal– Sample Feedback

- Reporting Feedback
- Error Corrections
- Report to CAT
- Reporting Relationships
- ATS Order Types
- Monthly Report Cards
- Contact Management

Report to CAT

File Upload

Download Feedback

Create CAT Events

Pending Submissions



Linkage feedback files are for both Portal and SFTP submissions. File Ingestion and Data Integrity feedback files are for Portal submissions via direct entry/

Feedback Time	File Name	Download
Feb 27, 2024 00:00:00	99999999_FDIDsinTransactionNotinCAIS_20240226_01.csv.bz2	
Feb 26, 2024 00:00:00	99999999_ZZZT1_20240226_Linkage_OrderEvents_000008.ingestion.json	
Feb 26, 2024 00:00:00	99999999_ZZZT1_20240226_Linkage_OrderEvents_000008.ingestion.json	

CAIS Subsystem Updates

New and Updated CAIS FAQs

- ▶ No new CAIS [FAQs](#).
- ▶ One CAIS [FAQ](#) was updated.
 - FAQ [Q55](#) was updated to conform with the Full CAIS Technical Specifications

Technical Specifications and Reporting Scenarios

- ▶ v2.1.r2 of the [Full CAIS Technical Specifications](#) (clean and redlined) were published on January 26, 2024.
 - Field values *fdidRejection* and *customerRejection* were updated to *FDIDRejection* and *CustomerRejection* respectively; and the field name *errorFeedBackFilename* was updated to *errorFeedbackFileName* to conform with the related schema. In addition, the field name *InconsistencyDeadline* was updated to *inconsistencyDeadline* in Table 21.
- ▶ The [Outstanding Material Inconsistencies Data Feedback File Schema](#) was updated on January 26, 2024.
 - The field name *identificationDeadline* was updated to *inconsistencyDeadline* to conform with the related Technical Specifications.
- ▶ There have been no updates to the CAIS Reporting Scenarios document.
- ▶ [CAT Alert 2022-01: Full CAIS Reporting Timeline and Interim Reporting Obligations](#) and [CAT Alert 2023-01: Interim Reporting Obligation 4 and Full CAIS Go-Live](#) were updated to conform with the Full CAIS Technical Specifications.

CAIS Industry Member Release Rollout

Industry Test: 01/29/2024

Production: 02/26/2024

- Re-Enable Material Inconsistencies
- Daily delivery of Outstanding Material Inconsistencies Feedback Files
- Retire Error Codes 22503 and 22525
- Daily delivery of Outstanding Rejections Feedback Files
- Fix Known Issues (High/Med priority)
- Expand *correctionList*

In the Transaction System:

- Enable FDID Validations
- Deliver list of FDIDs accepted to Transaction Production that are not in CAIS Production

CAIS 2024 Release 2

Industry Test: 03/11/2024

Production: 04/08/2024

- Material Inconsistencies Statistics Screen
- Add File Group Number to Manual Submissions Review
- Correspondent CRD & Overall Compliance Error Rate (FDID + Customer) displayed on submission report
- Fix Known Issues (Med/Low Priority)

CAIS Report Card Release

Report Card

- The first Full CAIS Report Card for the month of June 2024 will be published in July 2024
- Compliance Rates distinguished for Correspondent data

CAIS Checkpoint Calls

- ▶ The next [CAIS Industry Testing Checkpoint Call](#) is scheduled for Wednesday, February 28, 2024 at 4:15 pm ET.
- ▶ The recording and presentation from the February 7, 2024 [CAIS Industry Testing Checkpoint Call](#) are available on the CAT website.

CAT Billing Updates

CAT Billing: Announcements









- ▶ A sample CAT invoice and billing trade details representing CAT billable trading activity for January 2024 is scheduled to be published to CAT Executing Brokers on February 26, 2024.
- ▶ Sample CAT invoices and billing trade details will be published for the months of January 2024 and February 2024 (to be published in February 2024 and March 2024 respectively).
- ▶ These sample invoices will be marked as non-payable and will be provided for informational purposes only.
- ▶ The [Billing Trade Summaries](#) from November 2023 and December 2023 were republished as text files and will be published as text files going forward.

Compliance Updates

Industry Member Report Card Updates

- ▶ The January 2024 CAT Industry Member Transaction Report Cards were published on February 15, 2024.
- ▶ Enhancements
 - Report Cards are now generated by processing date
 - Statistics available by Firm IMID
 - Processing dates and trade dates provided for late reporting statistics

Industry Member Report Card Updates


Reporting Feedback

Error Corrections

Report to CAT

Reporting Relationships

ATS Order Types

Monthly Report Cards

Contact Management

Invoices

Monthly Report Cards

Transaction Report Card
CAIS Report Card

Industry Member Firm Name (CRD): FINRA CAT LLC (99999999)

Period: January 2024

Version: 2

[EXPORT](#)

PDF (Print Friendly)

CSV (Monthly Data by IMID)

CSV (Daily Data by IMID)

Transaction Monthly Report Card

i The Transaction Report Card is a monthly compliance summary and status report. The Report Card provides Industry Member CAT reporting statistics and peer group comparisons for the month. The data displayed here is for the Industry Member (CRD). Statistics by IMID are also available via Export. The [Transaction Report Card Glossary](#) published on the CAT NMS plan website, provides a reference description for all of the elements found on the CAT Industry Member Compliance Report Card. For questions regarding the specific report, please call the FINRA CAT Helpdesk by phone at 888-696-3348 or email at help@finracat.com




CATEGORY	EQUITIES	OPTIONS	N/A*	OVERALL
Firm Compliance Error Rate	0.0057%	0.1018%		0.0132%
Firm Compliance Error Count	3,623	5,482	0	9,105
Days Exceeding 5% Compliance Error Rate	0	0		0

Industry Member Daily Statistics Update

Reporting Feedback


Reporting Summary | Event Type Counts | Error Code Counts | File Status | Counterparty Statistics | **Late Statistics**

Processing Date Trade Date Product Type IMID

8/3/2023  ALL  ALL  **APPLY** **RESET**

[Export](#)

Submitter ID	CAT Reporter IMID	Processing Date	Trade Date	Late Accepted Records
99999999	ZZZT1	8/3/2023	8/1/2023	5
99999999	ZZZT1	8/3/2023	7/31/2023	57
99999999	ZZZT1	8/3/2023	7/27/2023	3
99999999	ZZZT1	8/3/2023	4/19/2023	2,482
99999999	CAT10	8/3/2023	8/1/2023	14
99999999	CAT10	8/3/2023	7/31/2023	92
88888888	CAT11	8/3/2023	7/31/2023	1
88888888	CAT11	8/3/2023	6/12/2023	8

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Industry Member Report Card Updates

- ▶ Compliance Resources:
 - [Industry Member Report Card- Known Issues List](#)
 - [CAIS Compliance Glossary](#)
 - [Transaction Compliance Glossary](#)
 - Previously Recorded and Posted [Report Card Webinars](#)

Annual Clock Synchronization Certification

- ▶ Industry Members must complete an annual certification for Business Clock Synchronization by March 15th of each year.
- ▶ Industry Members are not required to submit certifications to the exchanges or FINRA.
 - Originals of such certifications must be maintained by Industry Members as part of their books and records and be available to regulators upon request.
 - Industry Members who are members of multiple Participants need only make a single clock synchronization certification.
- ▶ Available on the [Clock Synchronization](#) page:
 - A copy of the [certification form](#)
 - The original [requirements announcement](#).

Upcoming Industry Webinars and Other Updates

Monthly CAT Update

- ▶ The next [Monthly CAT Update](#) will be held on March 21, 2024 at 4:15 pm ET.
- ▶ The recording and presentation from the January 18, 2024 [Monthly CAT Update](#) are available on the CAT website.

Live CAT Overview Training Sessions

- ▶ FINRA CAT, LLC is offering live and interactive CAT Overview training sessions for Industry Members and CAT Reporting Agents.
- ▶ The CAT Overview focuses on the CAT NMS Plan, Transaction and CAIS Subsystems, and Report Cards, and includes a live demonstration of the CAT Reporter Portal.
- ▶ All training sessions are fully customizable to suit your firm's needs.
- ▶ Please contact the FINRA CAT Helpdesk at help@finracat.com or (888) 696-3348 to schedule a training session for your firm.

Other Updates

- ▶ Starting in 2024, the Known Issues Lists will incorporate a new numbering convention to assign a unique, permanent identifier and allow for ease of tracking.
 - For example:
 - C2024-22 was published to the CAT CAIS Known Issues list
 - B2024-1 was published to the Billing Known Issues list
- ▶ Applicable to:
 - [CAT Transaction-Known Issues List](#)
 - [Industry Member Report Card-Known Issues List](#)
 - [CAT CAIS-Known Issues List \(Full CAIS\)](#)
 - [CAT Billing Known Issues List](#)
 - [Participant CAT Transaction-Known Issues List](#)

Update to CAT DUO MFA User Experience

- ▶ The FINRA CAT DUO application will be releasing a new system update no later than March 30, 2024, impacting all CAT application users. FINRA CAT's DUO authentication page currently utilizes a web frame during the sign on process. The new system update will redirect customers to an external DUO page to authenticate the user.

Updated Login Screen

FINra CAT

Welcome

i Please note that users will be redirected to DUO website for continuation of the multi-factor authentication.

User ID

Enter User ID here

Password

Enter password here

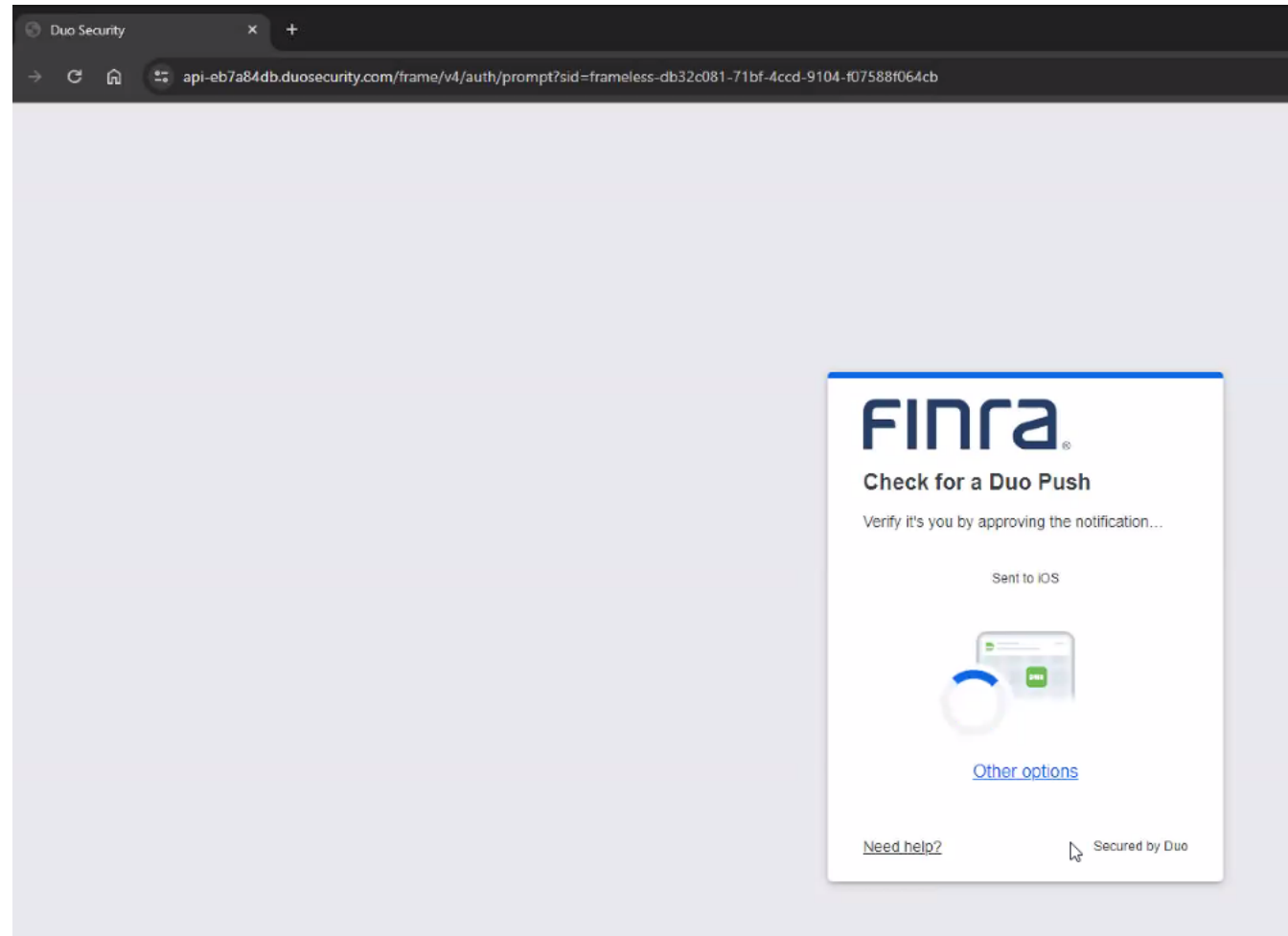
[View Password](#)

By clicking "Accept and continue" I certify that I have read, understood, and accepted the [Privacy Policy](#) and the [CAT System Terms of Use](#).

ACCEPT AND CONTINUE

[Forgot User ID or Password?](#)

Redirect to External Duo Page



FINRA CAT Helpdesk

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

Q&A

How to Ask a Question during Today's Call

- **For participants using computer audio:**
 - Click 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.

Appendix

Equities – Rolling Five Day Period

Initial T+1 vs. T+5 8 am Data Ready for Regulators

January 12, 2024 – January 26, 2024

Trade Date	Late%	Rejection Initial	Rejection Adjusted	Intrafirm Initial	Intrafirm Adjusted	Interfirm Sent Initial	Interfirm Sent Adjusted	Interfirm Received Initial	Interfirm Received Adjusted	Exchange Initial	Exchange Adjusted	Trade Initial	Trade Adjusted	Overall Error Rate Initial	Overall Error Rate Adjusted
1/12/2024	.0001%	.0003%	.0000%	.0003%	.0003%	.0015%	.0013%	.0021%	.0011%	.0011%	.0000%	.0269%	.0246%	.0011%	.0005%
1/16/2024	.0058%	.0003%	.0000%	.0004%	.0003%	.0006%	.0002%	.0018%	.0007%	.0003%	.0000%	.0407%	.0280%	.0066%	.0061%
1/17/2024	.1893%	.0003%	.0000%	.0008%	.0005%	.0004%	.0002%	.3615%	.0004%	.0003%	.0000%	.0286%	.0257%	.2255%	.1897%
1/18/2024	.0147%	.0003%	.0001%	.0006%	.0003%	.0005%	.0002%	.0024%	.0003%	.0003%	.0000%	.0324%	.0290%	.0158%	.0151%
1/19/2024	.0001%	.0003%	.0000%	.0003%	.0003%	.0007%	.0004%	.1095%	.1086%	.0003%	.0000%	.0344%	.0294%	.0113%	.0109%
1/22/2024	.0007%	.0003%	.0001%	.0004%	.0003%	.0023%	.0006%	.1968%	.1943%	3.1768%	.0000%	.0359%	.0315%	.4366%	.0199%
1/23/2024	.0015%	.0003%	.0000%	.0005%	.0004%	.0006%	.0003%	.1201%	.1142%	.0003%	.0000%	.0379%	.0310%	.0139%	.0129%
1/24/2024	.1128%	.0028%	.0025%	.0047%	.0046%	.5493%	.0001%	.0267%	.0003%	.0113%	.0000%	.0240%	.0234%	.1769%	.1187%
1/25/2024	.0003%	.0055%	.0000%	.0003%	.0003%	.0399%	.0001%	.0405%	.0003%	.0299%	.0000%	.0226%	.0203%	.0178%	.0006%
1/26/2024	.0002%	.0003%	.0000%	.0006%	.0005%	.0377%	.0001%	.0387%	.0004%	.0284%	.0000%	.0300%	.0274%	.0121%	.0006%

Equities – Rolling Five Day Period

Initial T+1 vs. T+5 8 am Data Ready for Regulators

January 29, 2024 – February 8, 2024

Trade Date	Late%	Rejection Initial	Rejection Adjusted	Intrafirm Initial	Intrafirm Adjusted	Interfirm Sent Initial	Interfirm Sent Adjusted	Interfirm Received Initial	Interfirm Received Adjusted	Exchange Initial	Exchange Adjusted	Trade Initial	Trade Adjusted	Overall Error Rate Initial	Overall Error Rate Adjusted
1/29/2024	.0006%	.0004%	.0001%	.0006%	.0004%	.0013%	.0002%	.0020%	.0006%	.0004%	.0000%	.0242%	.0232%	.0018%	.0011%
1/30/2024	.0064%	.0004%	.0001%	.0007%	.0006%	.0006%	.0002%	.0114%	.0016%	.0004%	.0000%	.0285%	.0270%	.0085%	.0071%
1/31/2024	.0252%	.0003%	.0000%	.0008%	.0008%	.0006%	.0001%	.0444%	.0006%	.0003%	.0000%	.0213%	.0204%	.0304%	.0259%
2/1/2024	.0376%	.0003%	.0001%	.0018%	.0016%	.0012%	.0007%	.0520%	.0017%	.0003%	.0000%	.0249%	.0231%	.0440%	.0385%
2/2/2024	.0399%	.0003%	.0000%	.0078%	.0004%	.0006%	.0002%	.0350%	.0012%	.0003%	.0000%	.0232%	.0216%	.0493%	.0404%
2/5/2024	.0131%	.0005%	.0001%	.0083%	.0003%	.0008%	.0005%	.0051%	.0034%	.0003%	.0000%	.0218%	.0214%	.0201%	.0138%
2/6/2024	.0058%	.0004%	.0001%	.0034%	.0011%	.0040%	.0036%	.0049%	.0034%	.0004%	.0000%	.0281%	.0273%	.0095%	.0073%
2/7/2024	.0198%	.0410%	.0406%	.0048%	.0040%	.0007%	.0004%	.1925%	.1914%	.0003%	.0000%	.0262%	.0253%	.0809%	.0798%
2/8/2024	.0151%	.0004%	.0004%	.0007%	.0007%	.0287%	.0283%	.0650%	.0287%	.0060%	.0000%	.1194%	.1170%	.0261%	.0216%

Options – Rolling Five Day Period

Initial T+1 vs. T+5 8 am Data Ready for Regulators

January 12, 2024 – January 26, 2024

Trade Date	Late%	Rejection Initial	Rejection Adjusted	Intrafirm Initial	Intrafirm Adjusted	Interfirm Sent Initial	Interfirm Sent Adjusted	Interfirm Received Initial	Interfirm Received Adjusted	Exchange Initial	Exchange Adjusted	Trade Initial	Trade Adjusted	Overall Error Rate Initial	Overall Error Rate Adjusted
1/12/2024	.0263%	.0567%	.0020%	.0021%	.0005%	.4976%	.0413%	.8202%	.3237%	.0136%	.0136%	.0319%	.0274%	.0874%	.0296%
1/16/2024	.0003%	.0001%	.0000%	.0001%	.0001%	.4937%	.0194%	.8971%	.4219%	.0003%	.0003%	.0257%	.0043%	.0034%	.0014%
1/17/2024	.3041%	.0018%	.0018%	.0002%	.0001%	.4939%	.0229%	3.9441%	.3923%	.0006%	.0006%	.0177%	.0106%	.3146%	.3070%
1/18/2024	.0000%	.0013%	.0013%	.0001%	.0001%	.4801%	.0006%	.4887%	.0054%	.0002%	.0002%	.0343%	.0171%	.0034%	.0015%
1/19/2024	.0000%	.0017%	.0017%	.0001%	.0001%	.7103%	.2164%	.5391%	.0620%	.0013%	.0013%	.0341%	.0152%	.0047%	.0027%
1/22/2024	.0010%	.0001%	.0001%	.0001%	.0001%	.9334%	.3326%	.6871%	.1481%	.0005%	.0005%	.0178%	.0178%	.0038%	.0020%
1/23/2024	.0006%	.0010%	.0010%	.0001%	.0001%	.6385%	.0468%	.6360%	.0635%	.0003%	.0003%	.0670%	.0361%	.0037%	.0019%
1/24/2024	.0320%	.0000%	.0000%	.0001%	.0001%	.4655%	.0011%	.7933%	.1574%	.0003%	.0003%	.0342%	.0114%	.0344%	.0325%
1/25/2024	.0031%	.0001%	.0000%	.0001%	.0001%	.4758%	.0006%	.4872%	.0049%	.0003%	.0003%	.0327%	.0109%	.0049%	.0033%
1/26/2024	.0022%	.0001%	.0000%	.0001%	.0001%	.4204%	.0005%	.4305%	.0058%	.0003%	.0003%	.0941%	.0941%	.0038%	.0024%

Options – Rolling Five Day Period

Initial T+1 vs. T+5 8 am Data Ready for Regulators

January 29, 2024 – February 8, 2024

Trade Date	Late%	Rejection Initial	Rejection Adjusted	Intrafirm Initial	Intrafirm Adjusted	Interfirm Sent Initial	Interfirm Sent Adjusted	Interfirm Received Initial	Interfirm Received Adjusted	Exchange Initial	Exchange Adjusted	Trade Initial	Trade Adjusted	Overall Error Rate Initial	Overall Error Rate Adjusted
1/29/2024	.0000%	.0001%	.0000%	.0001%	.0001%	.4461%	.0009%	.4527%	.0067%	.0027%	.0005%	.0051%	.0051%	.0023%	.0003%
1/30/2024	.0314%	.0001%	.0000%	.0001%	.0001%	.4127%	.0011%	.5378%	.0061%	.0002%	.0002%	.0287%	.0096%	.0330%	.0316%
1/31/2024	.0535%	.0001%	.0000%	.0002%	.0002%	.0281%	.0192%	.4640%	.0033%	.0003%	.0003%	.0137%	.0091%	.0545%	.0538%
2/1/2024	.1629%	.0001%	.0001%	.0005%	.0004%	.0032%	.0017%	1.2723%	.0027%	.0005%	.0005%	.0202%	.0101%	.1654%	.1634%
2/2/2024	.0670%	.0001%	.0000%	.0003%	.0001%	.0028%	.0008%	1.3835%	.0034%	.0004%	.0004%	.0163%	.0122%	.0699%	.0673%
2/5/2024	.0033%	.0001%	.0000%	.0001%	.0001%	.0091%	.0012%	.0160%	.0042%	.0004%	.0004%	.0528%	.0440%	.0036%	.0035%
2/6/2024	.0001%	.0001%	.0000%	.0003%	.0001%	.0042%	.0012%	.0123%	.0033%	.0011%	.0011%	.0176%	.0176%	.0007%	.0005%
2/7/2024	.0190%	.0000%	.0000%	.0001%	.0001%	1.1610%	.0104%	1.6754%	.0136%	.0004%	.0004%	.0435%	.0363%	.0231%	.0192%
2/8/2024	.0017%	.0001%	.0001%	.0001%	.0001%	1.1000%	1.0986%	1.3613%	1.3589%	.0004%	.0004%	.0750%	.0600%	.0057%	.0057%

Equities – Industry Aggregate Trade Date Statistics January 12, 2024 – January 26, 2024

Trade Date	Processed	Accepted	Late	Overall Errors Count
2024-01-12	36,399,352,021	36,398,997,709	134,135	253,067
2024-01-16	40,158,579,185	40,158,336,503	2,488,658	2,624,545
2024-01-17	35,168,954,308	35,168,707,285	66,664,823	66,795,804
2024-01-18	36,927,544,203	36,927,315,213	5,538,196	5,653,477
2024-01-19	36,188,097,942	36,187,903,280	106,337	4,025,819
2024-01-22	35,538,976,402	35,538,773,714	344,256	7,181,832
2024-01-23	33,329,009,926	33,328,858,560	599,158	4,370,692
2024-01-24	37,824,438,122	37,823,278,080	42,796,518	45,022,014
2024-01-25	39,265,913,192	39,263,722,233	209,431	330,896
2024-01-26	32,943,186,177	32,943,081,397	155,352	291,981

Equities – Industry Aggregate Trade Date Statistics January 29, 2024 – February 8, 2024

Trade Date	Processed	Accepted	Late	Overall Errors Count
2024-01-29	29,832,785,203	29,832,555,143	283,197	425,518
2024-01-30	31,531,602,690	31,530,473,909	2,426,679	2,653,592
2024-01-31	45,575,847,385	45,572,537,167	11,875,583	12,173,684
2024-02-01	43,518,780,472	43,516,762,274	16,811,371	17,126,795
2024-02-02	43,649,085,343	43,648,135,428	17,563,866	17,724,348
2024-02-05	35,926,733,918	35,926,414,051	4,920,640	5,070,500
2024-02-06	36,510,522,406	36,510,314,886	2,100,266	2,654,574
2024-02-07	33,842,402,797	33,827,860,877	6,686,920	27,018,401
2024-02-08	30,286,619,872	30,286,445,439	4,570,893	6,784,147

Options – Industry Aggregate Trade Date Statistics

January 12, 2024 – January 26, 2024

Trade Date	Processed	Accepted	Late	Overall Errors Count
2024-01-12	14,620,743,310	14,610,207,182	6,093,485	6,376,859
2024-01-16	14,826,563,024	14,826,398,835	82,668	236,809
2024-01-17	15,084,011,785	15,083,647,513	45,932,237	46,332,459
2024-01-18	15,497,179,427	15,496,892,594	44,310	265,051
2024-01-19	16,640,280,821	16,639,827,493	35,420	477,665
2024-01-22	17,862,965,740	17,862,860,829	219,660	379,866
2024-01-23	18,134,952,407	18,134,636,368	144,463	364,530
2024-01-24	17,965,563,254	17,965,313,686	5,780,086	5,852,600
2024-01-25	18,245,297,928	18,245,201,651	601,123	620,113
2024-01-26	18,027,026,834	18,026,883,384	424,881	444,034

Options – Industry Aggregate Trade Date Statistics

January 29, 2024 – February 8, 2024

Trade Date	Processed	Accepted	Late	Overall Errors Count
2024-01-29	17,976,434,779	17,976,303,596	43,767	72,393
2024-01-30	18,121,862,297	18,121,705,968	5,721,202	5,743,666
2024-01-31	18,538,015,001	18,537,694,012	9,954,342	9,991,239
2024-02-01	18,475,961,242	18,475,861,502	30,103,911	30,188,305
2024-02-02	18,548,686,876	18,548,177,555	12,453,819	12,493,509
2024-02-05	18,430,833,919	18,430,549,025	622,586	665,942
2024-02-06	18,077,340,820	18,077,220,756	17,371	92,869
2024-02-07	18,451,138,325	18,451,024,231	3,512,230	3,550,561
2024-02-08	18,408,579,183	18,408,473,650	303,372	1,032,155