Industry Checkpoint Call

December 14, 2021

Agenda

- Production Statistics
- Open Issues
- General Announcements and Reminders
- Upcoming Key Dates
- Phase 2d Updates
- Q&A

Production Statistics

Equities - Rolling Five Day Period Initial T+1 vs. T+5 8 am Data Ready for Regulators December 2, 2021 - December 8, 2021

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	TRF Initial	TRF Adjusted	Overall Error Rate Initial	Overall Error Rate Adjusted
12/2/2021	.0008%	.0009%	.0007%	.0013%	.0012%	.0020%	.0015%	.0036%	.0018%	.0012%	.0012%	1.5748%	.0680%	.0045%	.0029%
12/3/2021	.1811%	.0009%	.0002%	.0007%	.0006%	.0005%	.0002%	.1062%	.0030%	.0899%	.0091%	1.5795%	.0731%	.2119%	.1824%
12/6/2021	.4264%	.0327%	.0325%	.0107%	.0107%	.0254%	.0252%	.8973%	.0266%	.0009%	.0008%	2.1861%	2.1428%	.5921%	.4742%
12/7/2021	.1643%	.0007%	.0004%	.0742%	.0734%	.0011%	.0009%	.1728%	.0845%	.0011%	.0011%	1.6560%	.0914%	.2378%	.2234%
12/8/2021	2.4690%	.0007%	.0004%	.0009%	.0008%	3.4940%	.0009%	1.8009%	.0029%	.0009%	.0009%	1.6729%	.0612%	3.1649%	2.4702%

Options - Rolling Five Day Period Initial T+1 vs. T+5 8 am Data Ready for Regulators December 2, 2021 - December 8, 2021

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	Overall Error Rate Initial	Overall Error Rate Adjusted
12/2/2021	8.7840%	.0154%	.0152%	6.8830%	.0263%	.0048%	.0020%	.0064%	.0021%	.0761%	.0760%	13.1773%	8.5013%
12, 2, 2021	0.704070	.015470	.013270	0.003070	.020370	100-1070	.002070	.000470	.002170	.070170	.070070	13.177370	0.501570
12/3/2021	1.4126%	.0218%	.0213%	.0176%	.0158%	.0059%	.0020%	.0071%	.0017%	.0178%	.0177%	1.4514%	1.4494%
12/6/2021	7.6744%	.0157%	.0153%	11.1625%	11.1624%	.0031%	.0020%	.0185%	.0014%	.4234%	.4234%	7.7041%	7.7032%
12/6/2021	7.0744%	.0157%	.0153%	11.1025%	11.1024%	.0031%	.0020%	.0185%	.0014%	.4234%	.4234%	7.7041%	7.7032%
12/7/2021	1.7438%	.0029%	.0026%	.0049%	.0038%	.0047%	.0039%	.0221%	.0019%	.0162%	.0161%	1.7555%	1.7538%
12/8/2021	.6466%	.0020%	.0019%	.0051%	.0051%	5.3941%	.0039%	.0425%	.0024%	.0212%	.0207%	.8527%	.6576%

Open Issues (2c)

FINRA CAT File Submission and Data Integrity 2c Open Issues List - As of 12/14/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	Open	N/A	Successful file delete submissions are incorrectly getting counted in the rejected files count in the statistics. Does not impact Compliance Error Rate.	Code Release	Low	2022	2022	Statistics
2	Open	N/A	FINRA CAT did not recognize the early close and improperly marked events that occurred between 1:15 and 4:15 pm ET and were reported by 8 am ET on the next CAT Trading Day as late events. Impact is limited to three days - 11/27/2020, 12/24/2020 & 11/26/2021.	Code Release	Low	2022	2022	Statistics
3	Open	N/A	File status screen is incorrectly displaying a blank integrity status in instances where the failure was due to a timeout or a duplicate file submission.	Code Release	Low	2022	2022	Reporter Portal
4	Open	N/A	Industry Members are intermittently experiencing a delayed display of file submissions and status in the File statistics screen on the Reporter Portal. This issue does not impact file feedback files.	Code Release	Low	2022	2022	Reporter Portal

FINRA CAT Linkage 2c Open Issues List - As of 12/14/2021

#	Status	Error Code	Summary	Resolution Priority		Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	Open	N/A	Parent not found and Named errors that are reconciled continue to be displayed as 'U' (Unrepaired) in Error Summary & Error Search screens. Feedback & Reporting Summary statistics are not impacted by this issue.	Code Release	High	Update: Currently evaluating alternative approach	Update: Currently evaluating alternative approach	Error Summary & Error Search Reporter Portal
2	Open	3601	Out of Sequence Errors that are caused by an incorrect Time Stamp on the parent event are not being properly reconciled when the parent Time Stamp is corrected. Repaired counts and Adjusted Unlinked Rate are impacted by this issue.	Code Release	High	2022	2022	Intrafirm Statistics
3	Open	Multiple	Parent not found errors are being generated for open option orders when the option symbol changes due to corporate action.	Code Release	Low	1Q 2022	1Q 2022	Intrafirm Linker Feedback & Statistics

FINRA CAT Linkage 2c Open Issues List - As of 12/14/2021

;	#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
	4	Open	9004 8004 7004 5004	FINRA CAT did not recognize the early close and improperly marked as unlinked, certain events that occurred between 1:15 and 4:15 pm ET and were reported by 8 am ET on the next CAT Trading Day. Any events that were marked as unlinked were automatically reconciled the following day. Impact is limited to three days - 11/27/2020 & 12/24/2020 & 11/26/2021.	Code Release	Low	2022	2022	Interfirm Exchange Trade Linker Feedback
	5	Open	396	FINRA CAT is incorrectly generating warnings on secondary events in instances where the parent DAY order was subsequently modified to a GTC order.	Code Release	Medium	2022	2022	Intrafirm Linker Feedback

Phase 2c- Recently Closed Known Issues List

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area	
1	Closed	2129	FINRA CAT is incorrectly accepting firmDetails with no firmDesignatedID populated on Fulfillment and	Code Release	Complete	2c: 10/11/2021	2c: 10/11/2021	Ingestion	
•	Cioseu	2129	Fulfillment Amendment Events.	Code Nelease	Complete	2d: 10/11/2021	2d: 12/13/2021	Validations	
,	2 Closed		FINRA CAT is incorrectly accepting clientDetails with no orderID populated on Fulfillment and Fulfillment	Code Release	Complete	2c: 10/11/2021	2c: 10/11/2021	Ingestion	
2	Cioseu	2122	Amendment Events.	Code Nelease	Complete	2d: 10/11/2021	2d: 12/13/2021	Validations	
3	Closed	2098	FINRA CAT is incorrectly rejecting allocation events when the symbol was effective on the tradeDate but		Complete	2d Only Change	2d Only Change	Ingestion	
3	Ciosed	2060	not effective on the event date on the allocation event.	Code Release	Complete	2d: 10/25/2021	2d: 12/13/2021	Validations	
4	Closed	6003	Industry Members are incorrectly receiving options exchange unlinked errors for subsequent day order modifications/ adjustments to long lived orders previously routed to the exchange. Options exchanges must report modifications in these instances. Nine firms impacted.	N/A	Complete	Update: 12/13/2021	Update: 12/13/2021	Options Exchange Linker Feedback	

FINRA CAT Open Issues List 2c Planned Enhancements

#		Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date	Production Environment Targeted Release Date	Area
	1	Open	2122	Incorrect error code is generated when an array field (e.g., clientDetails) is populated as a Name/Value pair.	Code Release	Low	To be scheduled	To be scheduled	Ingestion Validations
	2	Open	2027	Incorrect error code is being generated when eventTimestamp is a future date (2027-eventTimestamp must be in the correct format instead of 2139 - eventTimestamp is greater than the current date and time).	Code Release	Low	To be scheduled	To be scheduled	Ingestion Validations

FINRA CAT Recently Closed Enhancements

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date	Production Environment Targeted Release Date	Area	
	1 Closed 2 Closed		Enhance OSI symbol validations to accept symbols that			2c: 9/20/2021	2c: 9/20/2021	Ingestion	
1		2060	are on the CAT Reportable Securities list even if event date is prior to effective date.	Code Release	Complete	2d: 10/11/2021	2d: 12/13/2021	Validations	
			Accept, rather than reject, routes to a foreign destination when the date in the name/value pair for			2c: 10/13/2021	2c: 10/13/2021	Ingestion	
2		2101	timeInForce values of 'DAY' and 'GTX' is T+2 to accommodate orders routed on a foreign holiday.	Code Release	Complete	2d: 10/11/2021	2d: 12/13/2021	Validations	

Open Issues (2d)

Phase 2d- Recently Closed Known Issues List

#		Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	1	Closed	6003 7004 8003 8004 9003 9004	FINRA CAT is generating an incorrect unlinked error when the date portion of the Route Event timestamp is on a weekend and the date portion of the Accept/Modify Event timestamp is for the next business day.	Code Release	Complete	12/13/2021	12/13/2021	Interfirm & Exchange Linkage Feedback
2	2	Closed	7000 series	FINRA CAT is not reconciling Exchange Named Errors when an Industry Member submits a repair/late data.	Code Release	Complete	11/30/2021	12/13/2021	Exchange Linkage Feedback & Reporting Statistics

Upcoming Technical Specification Updates

#	Status	Summary	Spec Publish Date	Spec Version	Effective Date
1	Published	Reject MEOT records if <i>buyDetails.side</i> field is populated with values SL, SS, SX or if the <i>sellDetails.side</i> field is populated with value B.	10/8/2021	4.0.0 r11	Q1 2022
2	Open	Change the <i>cancelQty</i> field on Request events (MEICR, MEOCR, MOICR, MOOCR, MLICR, and MLOCR) from Conditional to Required starting in Q1 2022.	TBD	TBD	Q1 2022
3	Open	Update the description of <i>cancelQty</i> to allow a value of '0' to indicate that the cancel was for the full remaining quantity.	TBD	TBD	11/9/21
4	Open	Clarify that the <i>accountHolderType</i> value of 'E' may also include an employee or associated person of affiliated group companies.	TBD	TBD	N/A
5	Open	Add handlingInstructions value 'SLL' (Strategy Legs Later).	TBD	TBD	11/15/21
6	Open	Add <i>handlingInstructions</i> value 'ALGS' (Indicates that the event is part of an algorithmic strategy where the specific quantity may not be explicitly provided).	TBD	TBD	11/15/21
7	Open	Change the data type of 'DLVT' handlingInstructions from Text to an Array.	TBD	TBD	Q1 2022
8	Open	Add a note to Appendix E.3 that Named Errors for Exchange Trade Linkage breaks (exchange floor trade events where a corresponding MOOT event is missing) are not currently available.	TBD	TBD	N/A

General Announcements and Reminders

Test Environment Availability

- The Industry Test Environment was closed and ceased processing Linkage feedback at approximately 9 pm ET on 12/13/21. FINRA CAT processed and delivered feedback for trade date 12/10/21. Please note that the Industry Test Environment may be utilized for targeted testing when appropriate.
- The Industry Test Environment will be available for firms to retrieve 12/10/21 feedback until approximately 8 pm ET on 12/14/21.
- Firms should ensure that any required feedback is retrieved prior to this time, as it will no longer be accessible once the Industry Test Environment becomes unavailable. FINRA CAT will implement a network block to the Industry Test Environment at approximately 8 pm ET on 12/14/21.
- > Firms may continue to test Phase 2d format in the Prod-Mirror Environment.

Announcement

- ➤ The Phase 2d Coordinated Industry Tests- Participating IMIDs webpage will be retired at approximately 5 pm ET on Friday, December 17, 2021.
- > If you require the lists of participating IMIDs, please retrieve them prior to this time.

Webinars

- The next Monthly CAT Implementation Update will be Wednesday, December 15, 2021 at 4:15 pm ET
- The next <u>Industry Testing Checkpoint Call</u> will be Tuesday, December 21, 2021 at 4:15 pm ET
- Small Firms Report Cards Webinars:
 - Small Firms Transaction Report Cards Webinar on January 12, 2022 at 1:30 pm ET
 - > Small Firms CAIS Report Cards Webinar on January 13, 2022 at 1 pm ET

Upcoming Key Dates

Upcoming Key Dates



Phase 2d Updates

Industry Member 2d Release Rollout

Release 2d1
Industry Test – 6/28/2021

Ingestion

Industry Test Open for Machineto-Machine File & Data Integrity Validations & Feedback

- Syntax Validations
- Conditional Validations

CAT Reporter Portal

- Manual File Upload
- Reporting Summary Statistics

Release 2d2
Industry Test – 7/19/2021

Intrafirm Linkage

Industry Test Open for Machineto-Machine Intrafirm Linkage Validations & Feedback

 Reference Data Validations on senderIMID, receiverIMID, destination and legDetails OptionID/Symbol

CAT Reporter Portal

- Linkage File feedback
- Linkage Statistics
- Error Summary and Error Search including Error Correction
- Direct Data Entry

Release 2d3
Industry Test – 8/2/2021

Interfirm Linkage

Industry Test Open for Machineto-Machine Interfirm/Exchange Linkage Validations & Feedback

- Interfirm Quote Linkage
- Interfirm/Exchange linkage for Route Modification Events including Unlinked feedback for Routed Order ID Mismatch
- Firm to Exchange Trade Linkage for MOOT Events

CAT Reporter Portal

 Support Clearing Firm View of Correspondent Reporting Feedback submitted by Third-Party Vendor Release 2d4
Industry Test – 8/23/2021

Multi-leg Linkage

Industry Test Open for Machine-to-Machine Multi-leg Linkage Validations & Feedback

- Interfirm & Exchange for Multi-leg Events
- Intrafirm Out of Sequence checks

CAT Reporter Portal

- Reconciliation Statistics
- Counterparty Statistics for MOOT linkages

2d Go-live Production – 12/13/2021

Ingestion & All Linkage

Production Open for Machine-to-Machine File, Data Integrity and All Linkage Validations & Feedback

CAT Reporter Portal

- Manual File Upload
- Reporting Summary Statistics including reconciliation
- Counterparty Statistics for MOOT linkages
- Linkage File Feedback
- Error Summary and Error Search including Error Correction
- Direct Data Entry
- Support Clearing Firm View of Correspondent Reporting Feedback submitted by Third-Party Vendor

Phase 2d Compliance Date - 12/13/2021

2d Statistics for December 13, 2021

- ▶ Total 1,136 Unique Firms and 210 Unique Submitters
- Overall File Rejection Rate is 1.56%
- Approximately 22.96% of submissions are New 2d Events
 - 79% of new 2d volume is comprised of cancelled routes
 - 71% of the cancelled route volume is equity activity

Initial Statistics for December 13, 2021

Trade Date	Product Type	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
12/13/2021	Equities	.1599%	.4365%	.4359%	.1285%	.1285%	.4013%	.4013%	2.2483%	2.2483%	.0278%	.0278%	.0000%	.0000%	.9518%	.9511%
12/13/2021	Options	.0018%	.2744%	.0274%	4.6533%	4.6533%	1.0099%	1.0099%	3.8852%	3.8852%	.1859%	.1859%	23.4068%	23.4068%	3.9693%	3.7224%

2d Observations for December 13, 2021

▶ Top 5 Ingestion Errors

- Missing or Invalid multiLegInd
- Missing or Invalid orderKeyDate
- Additional fields are specified in the record but are not defined for this CAT event type
- Invalid netPrice
- Missing or Invalid session

FINRA CAT Helpdesk

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

How to Ask a Question during Today's Call

For participants using computer audio:

- Click the "Raise Hand" button at the bottom of the participant's 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.