Industry Checkpoint Call

November 23, 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
November 11, 2021 – November 17, 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
11/11/2021	.4301%	.0008%	.0004%	.0017%	.0013%	.0018%	.0010%	.1618%	.0044%	.0008%	.0008%	.1535%	.1375%	.4539%	.4323%
11/12/2021	.0004%	.0009%	.0005%	.0023%	.0011%	.0020%	.0013%	.0061%	.0041%	.0970%	.0009%	.3654%	.3474%	.0213%	.0028%
11/15/2021	.0222%	.0220%	.0192%	.0084%	.0023%	.0045%	.0038%	.0205%	.0030%	.0011%	.0011%	.6079%	.0747%	.0539%	.0439%
11/16/2021	.2057%	.0012%	.0007%	.0509%	.0014%	.0068%	.0040%	.3976%	.0052%	.0010%	.0009%	.4904%	.0738%	.2949%	.2087%
11/17/2021	.0126%	.0009%	.0005%	.0013%	.0012%	.0013%	.0007%	.0106%	.0019%	.0147%	.0008%	.5260%	.0599%	.0192%	.0144%

Options – Rolling Five Day Period
Initial T+1 vs. T+5 8 am Data Ready for Regulators
November 11, 2021 – November 17, 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
11/11/2021	.0485%	.0036%	.0026%	.0022%	.0008%	.1794%	.1007%	.1056%	.0763%	.0012%	.0004%	.0606%	.0560%
11/12/2021	.0059%	.0018%	.0008%	.0022%	.0008%	.1419%	.1172%	.1194%	.0906%	.1574%	.0007%	.0657%	.0128%
11/15/2021	.2764%	.0016%	.0015%	.0026%	.0024%	.4005%	.4000%	.4416%	.3750%	.0008%	.0006%	.3018%	.2997%
11/16/2021	15.4463%	.0008%	.0006%	1.5307%	.0010%	.0741%	.0680%	1.6650%	.0459%	.0012%	.0006%	15.4961%	15.4509%
11/17/2021	.0035%	.0032%	.0031%	.0073%	.0070%	.0623%	.0619%	.0504%	.0406%	.0095%	.0092%	.0184%	.0176%

Open Issues (2c)

FINRA CAT File Submission and Data Integrity 2c Open Issues List – As of 11/23/2021

#	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	Update: 2022	Update: 2022	Statistics
2	Open	N/A	**Update:** 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	Update: 2022	Update: 2022	Statistics
3	Open	N/A	File statistics 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	Update: 2022	Update: 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	Update: 2022	Update: 2022	Reporter Portal

FINRA CAT File Submission and Data Integrity 2c Open Issues List – As of 11/23/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
5	Open	2129	FINRA CAT is incorrectly accepting firmDetails with no firmDesignatedID populated on Fulfillment and Fulfillment Amendment Events.	Code Release	Low	2c: 10/11/2021 2d: 10/11/2021	2c: 10/11/2021 2d: 12/13/2021	Ingestion Validations
6	Open	2121 2122	FINRA CAT is incorrectly accepting clientDetails with no orderID populated on Fulfillment and Fulfillment Amendment Events.	Code Release	Low	2c: 10/11/2021 2d: 10/11/2021	2c: 10/11/2021 2d: 12/13/2021	Ingestion Validations
7	Open	2098 2060	FINRA CAT is incorrectly rejecting allocation events when the symbol was effective on the tradeDate but not effective on the event date on the allocation event.	Code Release	Medium	2d Only Change 2d: 10/25/2021	2d Only Change 2d: 12/13/2021	Ingestion Validations

FINRA CAT Linkage 2c
Open Issues List – As of 11/23/2021

#	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	**Update:** 2022	**Update:** 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	Update: 2021 Note that this issue only impacts Options Intravenue Exchange Errors	Update: 2021 Note that this issue only impacts Options Intravenue Exchange Errors	Intrafirm Linker Feedback & Statistics
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	Update: 2022	Update: 2022	Interfirm Exchange Trade Linker Feedback

*** The Known Issues List is published on www.catnmsplan.com under "Industry Member Specifications" ***

FINRA CAT Linkage 2c
Open Issues List – As of 11/23/2021

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

Open Issues (2d)

FINRA CAT Linkage 2d
Open Issues List – As of 11/23/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	NEW-Open	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	Medium	12/13/2021	Not an issue in the Production Environment	Interfirm & Exchange Linkage Feedback

Upcoming Technical Specification Updates

#	Status	Summary	Spec Publish Date	Spec Version	Effective Date
1	Published	Reject MEOT records if *buyDetails.side* field is populated with values SL, SS, SX or if the *sellDetails.side* field is populated with value B.	10/8/2021	4.0.0 r11	Q1 2022
2	Open	Change the *cancelQty* 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 *cancelQty* 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 *accountHolderType* 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 *handlingInstructions* 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	NEW - Open	Change the data type of 'DLVT' *handlingInstructions* from Text to an Array.	TBD	TBD	Q1 2022

General Announcements and Reminders

Phase 2d Coordinated Industry Tests

➢ The lists of participating IMIDs from the five previous tests are posted to the CAT website

➢ The last Phase 2d coordinated industry test is on CAT Trading Day Friday, November 26, 2021

  • Participation in the industry tests is optional, but all Industry Members are encouraged to participate

  • Please refer to CAT Alert 2021-03 for additional information

Test Number	CAT Trading Day of the Coordinated Industry Test	Data Due to Industry Test	List of Participating IMIDs Posted as Reference Data on the CAT Website
6	11/26/21	By 8 am on 11/29/21	By 9 am on 12/1/21

Upcoming Industry Webinars

➢ The next [Industry Testing Checkpoint Call](#) will be Tuesday, November 30, 2021 at 4:15 pm ET

➢ The next [Monthly CAT Implementation Update](#) will be Wednesday, December 15, 2021 at 4:15 pm ET

Upcoming Key Dates

Upcoming Key Dates for Phase 2d

Topic	Event	Date
Industry Call: Industry Testing Checkpoint	Periodic Industry Testing Checkpoint Calls – Designated Tuesdays at 4:15 pm (ET)	January 7, 2020 until further notice
Compliance Go-Live	Production Go-Live for Phase 2d reporting requirements	December 13, 2021

The Timeline can be found at https://catnmsplan.com/timeline

Phase 2d Updates

Announcement

➢ The Production Environment will be unavailable from approximately 8-10 am ET on December 13, 2021, during which time Industry Members will not be able to submit data to CAT.

- FINRA CAT will send a communication when the system becomes unavailable and will send another communication when the system is back up.

Industry Member 2d Release Rollout

Release 2d1
Industry Test – 6/28/2021

Ingestion
Industry Test Open for Machine-to-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 Machine-to-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 Machine-to-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 & Observations
As of November 17, 2021

➢ Total **1134** Unique Firms and **171** Unique Submitters in Industry Test

➢ Overall File Rejection Rate is **3.40%**

➢ Approximately **11.74%** of submissions are New 2d Events; **0.61%** of submissions are Multi-leg Events

➢ Most of the Unlinked Interfirm, Exchange and Trade are due to:
  • Not all firms reporting in Test Environment
  • Firms reporting test symbols that are matched with production data for Exchange and Trade Linkage

➢ Coordinated Industry Test
  • **362** unique IMIDs participated in the 9/10 Industry Test
  • **505** unique IMIDs participated in the 10/1 Industry Test
  • **561** unique IMIDs participated in the 10/15 Industry Test
  • **776** unique IMIDs participated in the 10/29 Industry Test
  • **1044** unique IMIDs participated in the 11/12 Industry Test

Equities – Rolling Five Day Period (Test)
Initial T+1 vs. T+5 8 am Data Ready for Regulators
November 11, 2021 – November 17, 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
11/11/2021	6.7157%	3.5806%	3.5806%	2.6116%	2.6116%	61.7855%	60.4714%	56.8490%	54.7889%	.1993%	.1993%	4.4503%	4.4490%	21.7783%	21.4773%
11/12/2021	10.2385%	6.2067%	6.2067%	4.3256%	4.3256%	30.2442%	30.2227%	47.0727%	43.7908%	.1252%	.1252%	3.4457%	3.4455%	26.4594%	26.0670%
11/15/2021	.5031%	1.8748%	1.8748%	.7520%	.7519%	60.8520%	60.8489%	44.7981%	44.5199%	.2100%	.2100%	4.1345%	4.1340%	13.1528%	13.1299%
11/16/2021	2.0836%	.6539%	.6539%	.7069%	.6987%	59.8272%	59.7642%	40.6731%	38.7299%	.1273%	.1273%	4.9465%	4.9463%	12.9758%	12.8476%
11/17/2021	4.3031%	.5441%	.5441%	.5038%	.5038%	57.1264%	50.2181%	39.2086%	37.8638%	.1429%	.1429%	2.9695%	2.9691%	14.4262%	13.5871%

Options – Rolling Five Day Period (Test)
Initial T+1 vs. T+5 8 am Data Ready for Regulators
November 11, 2021 – November 17, 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
11/11/2021	.1056%	.1412%	.1411%	.1393%	.1393%	4.3959%	4.1332%	5.2344%	5.1346%	.4426%	.4426%	.7013%	.6910%
11/12/2021	4.0252%	3.3689%	3.3689%	.7147%	.7137%	3.6283%	3.6281%	28.6060%	25.2377%	.6539%	.6539%	8.2008%	8.1075%
11/15/2021	.7589%	.4047%	.4047%	9.3730%	9.3730%	4.4352%	4.4303%	3.6498%	3.6294%	3.2569%	3.2569%	9.0380%	9.0370%
11/16/2021	.2334%	.2859%	.2859%	.3919%	.3918%	23.2552%	23.0788%	22.4055%	15.8952%	1.1146%	1.1146%	1.3451%	1.2867%
11/17/2021	.0930%	.4593%	.4593%	.5337%	.5337%	6.2293%	6.2291%	5.3917%	5.3665%	1.9967%	1.9967%	1.8293%	1.8283%

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.