
Industry Checkpoint Call

November 9, 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

October 21, 2021 – November 3, 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
10/21/2021	.0193%	.0006%	.0000%	.0012%	.0010%	.0114%	.0006%	.1271%	.0714%	.0007%	.0007%	.1168%	.0808%	.0390%	.0296%
10/22/2021	.0003%	.0017%	.0004%	.0020%	.0016%	.0112%	.0017%	.0662%	.0550%	.0007%	.0007%	.2607%	.0730%	.0139%	.0094%
10/25/2021	.2037%	.0012%	.0000%	.0017%	.0015%	.1632%	.0014%	.4100%	.0313%	.0008%	.0008%	.1093%	.0821%	.2799%	.2092%
10/26/2021	.2606%	.0105%	.0000%	.0030%	.0012%	.0182%	.0004%	.6266%	.0300%	.0010%	.0007%	.0876%	.0629%	.3573%	.2656%
10/27/2021	.0018%	.0007%	.0001%	.0019%	.0011%	.0111%	.0004%	.0172%	.0041%	.0008%	.0007%	.0905%	.0778%	.0076%	.0034%
10/28/2021	.0120%	.0011%	.0001%	.0011%	.0009%	.0150%	.0033%	.0258%	.0056%	.0020%	.0019%	.0886%	.0685%	.0197%	.0142%
10/29/2021	.0006%	.0007%	.0002%	.0024%	.0021%	.0150%	.0143%	.0209%	.0172%	.0029%	.0020%	.1262%	.1049%	.0082%	.0067%
11/1/2021	.0261%	.0007%	.0001%	.0014%	.0010%	.0502%	.0034%	.0706%	.0068%	.0034%	.0032%	.1083%	.0926%	.0443%	.0289%
11/2/2021	.0120%	.0012%	.0006%	.0016%	.0006%	.0146%	.0011%	.0305%	.0048%	.0017%	.0008%	.1144%	.0950%	.0205%	.0140%
11/3/2021	.0690%	.0011%	.0007%	.0021%	.0017%	.0221%	.0123%	.1145%	.0147%	.0015%	.0007%	.1087%	.0836%	.0900%	.0745%

Options – Rolling Five Day Period

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

October 21, 2021 – November 3, 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
10/21/2021	8.2435%	.0090%	.0079%	.0050%	.0049%	.5475%	.0436%	.1336%	.0155%	.0109%	.0097%	8.2715%	8.2587%
10/22/2021	.0437%	.0154%	.0143%	.0061%	.0058%	.4191%	.0457%	.4355%	.0092%	.0121%	.0115%	.0813%	.0664%
10/25/2021	.0218%	.0158%	.0147%	.0073%	.0066%	.7589%	.0471%	.9904%	.0062%	.0129%	.0121%	.0763%	.0458%
10/26/2021	.1344%	.0231%	.0221%	.0065%	.0064%	.6648%	.0453%	.7051%	.0086%	.0432%	.0119%	.1885%	.1655%
10/27/2021	.0051%	.0189%	.0181%	.0060%	.0058%	.5658%	.1528%	.6187%	.1136%	.0133%	.0124%	.0499%	.0351%
10/28/2021	.0095%	.0188%	.0180%	.0062%	.0061%	.5214%	.5137%	.5714%	.4814%	.0199%	.0197%	.0580%	.0553%
10/29/2021	.2307%	.0123%	.0115%	.0075%	.0069%	.0520%	.0513%	.0861%	.0125%	.0112%	.0108%	.2545%	.2516%
11/1/2021	.1862%	.0168%	.0161%	.0046%	.0044%	.0458%	.0391%	.2299%	.0410%	.0091%	.0089%	.2147%	.2098%
11/2/2021	.2385%	.0106%	.0100%	.0049%	.0048%	.2992%	.2909%	.3568%	.2655%	.0078%	.0072%	.2667%	.2640%
11/3/2021	.0021%	.0146%	.0145%	.0089%	.0089%	.1091%	.1044%	.1277%	.1006%	.0134%	.0132%	.0320%	.0311%

Open Issues (2c)

FINRA CAT File Submission and Data Integrity 2c

Open Issues List – As of 11/9/2021

#	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	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 two days - 11/27/2020 & 12/24/2020.	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 11/9/2021

#	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	2c: 10/11/2021	Ingestion Validations
						2d: 10/11/2021	2d: 12/13/2021	
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	2c: 10/11/2021	Ingestion Validations
						2d: 10/11/2021	2d: 12/13/2021	
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 Only Change	Ingestion Validations
						2d: 10/25/2021	2d: 12/13/2021	

FINRA CAT Linkage 2c

Open Issues List – As of 11/9/2021

#	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: 1Q 2022	Update: 1Q 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 two days - 11/27/2020 & 12/24/2020.	Code Release	Low	Update: 2022	Update: 2022	Interfirm Exchange Trade Linker Feedback

FINRA CAT Linkage 2c

Open Issues List – As of 11/9/2021

#	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	2Q 2022	2Q 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: 4Q 2021	Update: 4Q 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	2c: 9/20/2021	Ingestion Validations
						2d: 10/11/2021	2d: 12/13/2021	
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	2c: 10/13/2021	Ingestion Validations
						2d: 10/11/2021	2d: 12/13/2021	

Open Issues (2d)

FINRA CAT File Submission and Data Integrity 2d

Open Issues List – As of 11/9/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	Open	2023	FINRA CAT is incorrectly rejecting MEMR, MOMR, and MLMR events when <i>destinationType</i> = 'F' and <i>dupROIDCond</i> is populated.	Code Release	Medium	Update: 11/15/2021	Not Applicable	Ingestion Validations

FINRA CAT Linkage 2d

Open Issues List – As of 11/9/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	NEW-Open	6021 6023 6025 6027 6029	FINRA CAT is not displaying unlinked MOOT events in Reporting Summary and Counterparty Statistics screens. Linkage feedback is not impacted by this issue.	Code Release	Medium	11/15/2021	Not Applicable	Reporter Portal Statistics

Upcoming Technical Specification Updates

#	Status	Summary	Spec Publish Date	Spec Version	Validation Effective Date
1	Published	Change <i>electronicTimestamp</i> field on MEOT and MOOT events from conditional to optional.	10/8/2021	4.0.0 r11	11/15/2021
2	Published	Clarify that <i>legDetails.openCloseIndicator</i> must be blank for equity orders.	10/8/2021	4.0.0 r11	11/15/2021
3	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
4	Published	For Multi-Leg Option Events, clarify that <i>price</i> must be blank when <i>orderType</i> is 'MKT'.	10/8/2021	4.0.0 r11	11/15/2021
5	Published	Add <i>handlingInstructions</i> value 'MAX' (OTC Link ATS Message MAX instruction).	10/8/2021	4.0.0 r11	11/15/2021
6	Published	Add <i>deptType</i> as an optional field to the MLOA event. In Q1 2022, this field will be changed from optional to required.	10/8/2021	4.0.0 r11	11/15/2021
7	Published	Add <i>clearingFirm</i> as an optional field to the MOOT event. In Q1 2022, this field will be changed from optional to required.	10/8/2021	4.0.0 r11	11/15/2021

In between publications, a list of Planned Technical Specifications Updates is maintained on the CAT website

General Announcements and Reminders

Phase 2d Coordinated Industry Tests

- The lists of participating IMIDs from the four previous tests are posted to the CAT website
- The next Phase 2d coordinated industry test is on CAT Trading Day Friday, November 12, 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

<u>Test Number</u>	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
5	11/12/21	By 8 am on 11/15/21	By 9 am on 11/17/21
6	11/26/21	By 8 am on 11/29/21	By 9 am on 12/1/21

Announcements

- Updated versions (Clean & Redline) of the Phase 2d [Industry Member Reporting Scenarios](#) were published on November 3, 2021.
- The recording and presentation from the [Industry Testing Checkpoint Call \(October 26, 2021\)](#) is posted to the CAT website.

Upcoming Industry Webinars

- The Industry Testing Checkpoint Calls will be held weekly, at 4:15 pm ET on Tuesdays
 - The next one is [November 16, 2021](#)
- The next [Monthly CAT Implementation Update](#) will be Thursday, November 18, 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

Phase 2d Updates

Industry Member 2d Release Rollout

Release 2d1 Industry Test – 6/28/2021	Release 2d2 Industry Test – 7/19/2021	Release 2d3 Industry Test – 8/2/2021	Release 2d4 Industry Test – 8/23/2021	2d Go-live Production – 12/13/2021
<p>Ingestion Industry Test Open for Machine-to-Machine File & Data Integrity Validations & Feedback</p> <ul style="list-style-type: none"> • Syntax Validations • Conditional Validations <p>CAT Reporter Portal</p> <ul style="list-style-type: none"> • Manual File Upload • Reporting Summary Statistics 	<p>Intrafirm Linkage Industry Test Open for Machine-to-Machine Intrafirm Linkage Validations & Feedback</p> <ul style="list-style-type: none"> • Reference Data Validations on <i>senderIMID, receiverIMID, destination</i> and <i>legDetails</i> OptionID/Symbol <p>CAT Reporter Portal</p> <ul style="list-style-type: none"> • Linkage File feedback • Linkage Statistics • Error Summary and Error Search including Error Correction • Direct Data Entry 	<p>Interfirm Linkage Industry Test Open for Machine-to-Machine Interfirm/Exchange Linkage Validations & Feedback</p> <ul style="list-style-type: none"> • 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 <p>CAT Reporter Portal</p> <ul style="list-style-type: none"> • Support Clearing Firm View of Correspondent Reporting Feedback submitted by Third-Party Vendor 	<p>Multi-leg Linkage Industry Test Open for Machine-to-Machine Multi-leg Linkage Validations & Feedback</p> <ul style="list-style-type: none"> • Interfirm & Exchange for Multi-leg Events • Intrafirm Out of Sequence checks <p>CAT Reporter Portal</p> <ul style="list-style-type: none"> • Reconciliation Statistics • Counterparty Statistics for MOOT linkages 	<p>Ingestion & All Linkage Production Open for Machine-to-Machine File, Data Integrity and All Linkage Validations & Feedback</p> <p>CAT Reporter Portal</p> <ul style="list-style-type: none"> • 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 3, 2021

- Total **948** Unique Firms in 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
- Total **158** Unique Submitters in Industry Test
- Overall File Rejection Rate is **3.94%**
- Approximately **11.16%** of submissions are New 2d Events; **0.54%** 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

Equities – Rolling Five Day Period (CT)

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

October 21, 2021 – November 3, 2021

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10/21/2021	68.3670%	.4059%	.4059%	.6302%	.6302%	61.8133%	61.8129%	63.8624%	52.0231%	.0028%	.0028%	3.0151%	.3648%	75.8055%	74.7927%
10/22/2021	39.1283%	7.6830%	7.6830%	6.8660%	6.8660%	35.3864%	32.2218%	81.6138%	77.2910%	.2530%	.2530%	11.1625%	5.4684%	63.2831%	62.3895%
10/25/2021	26.2162%	.4732%	.4732%	10.0704%	10.0019%	56.0398%	50.6392%	77.1638%	74.3611%	.1581%	.1581%	.0348%	.0222%	45.6029%	44.3551%
10/26/2021	48.3759%	.4308%	.4308%	.7090%	.7090%	66.7298%	61.7899%	74.4929%	69.3455%	.0458%	.0458%	.1318%	.1286%	61.1295%	60.2023%
10/27/2021	23.2525%	9.2493%	9.2477%	.5349%	.5324%	63.6093%	61.6248%	73.1228%	68.5209%	.0121%	.0121%	.1575%	.1562%	41.0693%	40.3426%
10/28/2021	.0893%	.1174%	.1174%	.5712%	.5693%	70.3620%	70.2670%	59.4899%	59.4769%	.0289%	.0289%	.3771%	.3707%	12.9845%	12.9730%
10/29/2021	7.7425%	6.6626%	6.6624%	.3663%	.3661%	32.1051%	31.1391%	53.0116%	49.9830%	.0430%	.0429%	.1143%	.1139%	22.8183%	22.3415%
11/1/2021	5.1478%	.1545%	.1545%	.4664%	.4664%	64.5996%	64.2329%	69.3146%	63.9393%	.0187%	.0187%	.1689%	.1657%	17.3057%	16.7455%
11/2/2021	3.6191%	.3468%	.3468%	.2646%	.2646%	73.4698%	73.4154%	58.0586%	56.5145%	.1415%	.1415%	.2569%	.2438%	14.8104%	14.7053%
11/3/2021	3.9162%	.7914%	.7914%	.2825%	.2825%	66.4261%	64.3178%	55.0335%	54.0308%	.1251%	.1251%	.4161%	.4121%	15.3327%	15.0438%

Options – Rolling Five Day Period (CT)

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

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10/21/2021	2.4840%	.2445%	.2445%	1.6766%	1.6766%	13.3690%	13.3690%	9.7473%	5.7084%	.1887%	.1887%	4.7312%	4.4968%
10/22/2021	14.6474%	.1964%	.1964%	4.7673%	.6086%	13.3124%	6.0264%	7.8514%	7.8469%	2.1367%	2.1367%	15.7490%	15.3392%
10/25/2021	8.7356%	.5282%	.5281%	.5928%	.4290%	13.1640%	11.9389%	13.3167%	8.6104%	.2464%	.2464%	10.3277%	10.0096%
10/26/2021	26.7111%	3.0830%	3.0830%	1.5674%	1.5674%	15.7782%	10.2059%	19.1782%	13.4580%	1.2788%	1.2788%	29.9904%	29.6138%
10/27/2021	28.4727%	15.7148%	15.7148%	.5259%	.5259%	9.1501%	5.2760%	41.3832%	38.6045%	1.0199%	1.0199%	40.5238%	40.1301%
10/28/2021	.0411%	.4337%	.4337%	.4760%	.4760%	11.3548%	11.2347%	5.5157%	5.4791%	3.1060%	3.1060%	2.5683%	2.5577%
10/29/2021	2.7314%	15.2029%	15.0772%	1.3181%	1.0276%	6.5959%	2.6590%	33.4061%	31.4129%	1.4158%	1.4158%	20.9202%	20.3485%
11/1/2021	.0263%	.2168%	.2168%	.5120%	.5120%	4.4454%	4.4453%	5.8028%	5.7652%	.9658%	.9658%	1.3778%	1.3751%
11/2/2021	1.6454%	11.7971%	11.7971%	5.9905%	5.9904%	3.4735%	3.4734%	12.5892%	10.4186%	.9678%	.9678%	17.8338%	17.7096%
11/3/2021	1.4320%	1.0252%	1.0252%	.3786%	.3786%	10.8221%	10.0635%	6.7786%	6.7091%	.0486%	.0486%	3.6212%	3.5760%

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.