Industry Checkpoint Call

February 16, 2021

Agenda

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

Production Statistics

Equities - Rolling Five Day Period Initial T+1 vs. T+5 8 am Data Ready for Regulators January 28, 2021 - February 09, 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
1/28/2021	.4548%	.0003%	.0002%	.0041%	.0028%	.5221%	.0642%	.9829%	.5405%	.1451%	.1336%	.1759%	.1412%	.6848%	.5613%
1/29/2021	.1059%	.0085%	.0078%	.0036%	.0019%	.0640%	.0419%	.3353%	.0282%	.8981%	.1495%	.1994%	.1399%	.3198%	.1497%
2/1/2021	.3879%	.0112%	.0109%	.0047%	.0039%	.0599%	.0147%	.7953%	.0218%	.1247%	.0971%	.3418%	.2454%	.5385%	.4227%
2/2/2021	.1737%	.0016%	.0013%	.0042%	.0027%	.4199%	.0404%	.2999%	.2559%	.1310%	.1202%	.2845%	.2260%	.2972%	.2376%
2/3/2021	.0589%	.0027%	.0024%	.0059%	.0053%	.0257%	.0193%	.0410%	.0257%	.0929%	.0812%	.2229%	.1945%	.0908%	.0853%
2/4/2021	11.1321%	.0007%	.0004%	.0067%	.0057%	.0374%	.0227%	12.3735%	.9152%	.0945%	.0684%	.2305%	.1995%	12.7927%	11.2719%
2/5/2021	.3825%	.0009%	.0007%	.0028%	.0021%	.0183%	.0164%	1.0539%	.0355%	.0841%	.0711%	.2997%	.2307%	.5426%	.4044%
2/8/2021	.0010%	.0092%	.0086%	.0078%	.0061%	.0218%	.0201%	.0465%	.0457%	.0773%	.0670%	.3042%	.2822%	.0383%	.0345%
2/9/2021	1.0400%	.0031%	.0001%	.0039%	.0030%	.0299%	.0173%	1.7243%	.0476%	.0757%	.0654%	.3142%	.2674%	1.2817%	1.0540%

Options - Rolling Five Day Period Initial T+1 vs. T+5 8 am Data Ready for Regulators January 28, 2021 - February 09, 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
1/28/2021	.0020%	.0180%	.0176%	.1427%	.1419%	.0197%	.0181%	.0971%	.0855%	.2141%	.1938%	.1625%	.1549%
1/29/2021	.4022%	.0128%	.0127%	.1223%	.1222%	.3210%	.0165%	9.2938%	.9705%	.1829%	.1649%	.6561%	.5403%
2/1/2021	.3686%	.0111%	.0100%	.1113%	.1111%	.0296%	.0274%	6.5285%	.2971%	.0671%	.0670%	.5450%	.4665%
2/2/2021	.0002%	11.0626%	.0034%	.1317%	.1317%	.0205%	.0173%	.3983%	.3949%	.0729%	.0728%	11.1605%	.1011%
2/3/2021	.0007%	.0128%	.0117%	.1380%	.1380%	.0203%	.0189%	.4901%	.4867%	.1295%	.1294%	.1359%	.1346%
2/4/2021	3.2071%	.0128%	.0116%	.1119%	.1119%	.0261%	.0248%	.3002%	.2947%	.1510%	.1472%	3.3299%	3.3274%
2/5/2021	.0929%	.0246%	.0230%	.1135%	.1135%	1.7279%	.0214%	.1072%	.0914%	.1295%	.1224%	.2415%	.2122%
2/8/2021	.0003%	.0268%	.0252%	.1164%	.1161%	.0366%	.0350%	.1153%	.1069%	.1483%	.1420%	.1282%	.1242%
2/9/2021	.0634%	.0211%	.0196%	.1050%	.1049%	.1396%	.0205%	.1406%	.1264%	.1388%	.1242%	.1791%	.1707%

Environment Support

2a/b in Production Mirror	2a/b in Production	2c in Industry Test	2c in Production
As of 1/25/2021	Ongoing	As of 1/25/2021	As of 4/26/2021
 Schema version 2.2.1 Machine-to-Machine Validations & Feedback 	 Schema version 2.2.1 Machine-to-Machine Validations & Feedback 	 Schema version 3.1.0 Machine-to-Machine Validations & Feedback 	 Schema version 3.1.0 Machine-to-Machine Validations & Feedback
 CAT Reporter Portal Reporting Feedback Error Corrections Report to CAT Reporting	 CAT Reporter Portal Reporting Feedback Error Corrections Report to CAT Reporting	 CAT Reporter Portal Reporting Feedback Error Corrections Report to CAT Reporting	 CAT Reporter Portal Reporting Feedback Error Corrections Report to CAT Reporting
Relationships ATS Order Types	Relationships ATS Order Types Report Card	Relationships ATS Order Types	Relationships ATS Order Types Report Card

Phase 2c Compliance Date – 4/26/2021

Phase 2c Test Statistics

Phase 2c Industry Test Status – As of 2/16/2021

Item	Statistic – To Date
Number of Total Submitters	59
Number of IMIDs	368
Total Records Submitted	28,819,799,254
Total Records Accepted	28,594,652,211
Total Records Rejected	225,147,043
Rejection Rate	0.78%

Open Issues (2a/2b)

FINRA CAT File Submission and Data Integrity (2a/2b) Open Issues List - As of 2/16/2021

#	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	2Q 2021	2Q 2021	Statistics
2	Open	N/A	FINRA CAT is incorrectly accepting timeInForce of GTD without a valid date.	Code Release	Medium	2c only: 1/25/2021	2c only: 4/26/2021	Ingestion Feedback & Statistics
3	Open	N/A	FINRA CAT did not recognize the early close and improperly marked as late, events that occurred between 1:15 and 4:15 pm ET and were reported by 8 am ET on the next CAT Trading Day. Impact is limited to two days - 11/27/2020 & 12/24/2020.	Code Release	Low	2021	2021	Statistics
Δ	Open	N/A	 N/A The below values are not yet implemented: handlingInstructions values 'TTF', 'TTO', and 'TTS'. 	Code Release	Madium	2a/2b: 1/25/2021	2a/2b: 2/14/2021	Ingestion
-4	Open	N/A			Medium	Medium	2c: 1/25/2021	2c: 4/26/2021

FINRA CAT Linkage (2a/2b) Open Issues List - As of 2/16/2021

#	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	1Q 2021	1Q 2021	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	Medium	1Q 2021	1Q 2021	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	2021	2021	Interfirm Exchange Trade Linker Feedback

FINRA CAT Linkage (2a/2b) Open Issues List - As of 2/16/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
F	Open	8003 8004	FINRA CAT is incorrectly generating interfirm unlinked errors for OTC equity securities when both sides report	Code Release	Medium	2a/2b: 2/8/2021	2a/2b: 2/8/2021	Interfirm
5	Open	9003 9004	but the destinationType/senderType don't match. For example, destinationType=O and senderType=F.	Coue Release	2c : 2/8/2021	2c : 2/8/2021	2c : 4/26/2021	Linker Feedback
6	Open	Multiple	FINRA CAT is improperly suppressing <u>interfirm</u> unlinked errors for the equity leg of complex orders. The unlinked error should only be suppressed for the equity leg of complex orders routed to or from an options exchange.	Code Release	Medium	4/26/2021	4/26/2021	Interfirm Linker Feedback
7	Open	396	FINRA CAT is incorrectly generating warning errors on secondary events in instances where the parent DAY order was subsequently modified to a GTC order.	Code Release	Medium	To be scheduled	To be scheduled	Intrafirm Linker Feedback
8	NEW- Open	8003 8004 9003 9004	FINRA CAT is incorrectly generating an unlinked error for the first time on T+4 for previously linked events in scenarios when the two events that were initially linked occurred on two separate trade dates. For example, an order routed at 6 pm on one calendar day and is reported as accepted by the receiving firm at 8 am on the next calendar day.	Code Release	Medium	To be scheduled	To be scheduled	Interfirm Linker Feedback

FINRA CAT Linkage (2a/2b) Open Issues List - As of 2/16/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
9	NEW- Open	N/A	On Processing Date 2/8/21, FINRA CAT generated duplicate interfirm linkage feedback in the production environment. As a result, outstanding interfirm linkage errors for 2/3/21 through 2/5/21 were double counted on 2/8/21 and displayed in linkage statistics and outstanding error files for those trade dates. The issue is expected to be corrected by 2/16/21.	Code Release	High	Not Applicable	2/16/2021	Interfirm Linker Feedback & Statistics

FINRA CAT Recently Closed Issues List (2a/2b)

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	Classed	N/A	Beginning with the 1/25/21 CAT Processing Date, Interfirm Unlinked Errors Corrections are not being properly reconciled when senderIMID and receiverIMID belong to the same firm and one side reported late. Repaired counts and Adjusted Unlinked Rate are impacted by this issue.			2a/2b: 2/14/2021	2a/2b: 2/14/2021	Interfirm Exchange
	Closed			Code Release	High	2c: 2/14/2021	2c: 2/14/2021	Trade Linker Feedback

FINRA CAT Open Issues List (2a/2b)-Planned Enhancements

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date	Production Environment Targeted Release Date	Area
1	Open	2133	For Name/Value Pair Data type fields, providing a value that is not in allowable values list returns error code 2133 (Additional Field) instead of error code 2101 (Missing or Invalid timeInForce).	Code Release	Low	2c only: March 2021	2c only: 4/26/2021	Ingestion Validations
2	Open	2122	Incorrect error code is generated when an array field (e.g., clientDetails) is provided as a Name/Value pair.	Code Release	Low	To be scheduled	To be scheduled	Ingestion Validations
3	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

Open Issues (2c)

FINRA CAT File Submission and Data Integrity (2c) Open Issues List – As of 2/16/2021

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date	Production Environment Targeted Release Date	Area
1	Open	2081	FINRA CAT is incorrectly rejecting a Quote Received event (MEQR) when receivedQuoteID is not populated.	Code Release	Medium	2/21/2021	Not Applicable	Ingestion Validations
2	Open	2176	FINRA CAT is incorrectly accepting future dates in the tradeDate field in Allocation Events (MEPA, MEAA).	Code Release	Medium	2/21/2021	Not Applicable	Ingestion Validations
3	Open	2146	FINRA CAT is incorrectly rejecting an Order Fulfillment Amendment Event (MEFA) when clientDetails is not populated.	Code Release	Medium	2/21/2021	Not Applicable	Ingestion Validations
4	Open	N/A	Portal Error Correction is accepting values that have been removed from the 2c spec. Such records are subsequently rejected with Ingestion Feedback.	Code Release	High	2/21/2021	Not Applicable	Portal Correction
5	Open	2145	FINRA CAT is incorrectly rejecting fulfillment events when fulfillmentLinkType is 'YE' and firmDetails are populated.	Code Release	High	2/21/2021	Not Applicable	Ingestion Validations
6	Open	6003 7004	FINRA CAT is not rejecting allocation events when allocationType is 'DVPF' and DVPCustodianID is not populated. Note that beginning February 21, 2021, new allowable values 'FDVP' and 'FDVF' will be available for use in test, and conditional check will be enhanced to include these values.	Code Release	High	2/21/2021	Not Applicable	Ingestion Validations

FINRA CAT Recently Closed Issues List (2c)

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date	Production Environment Targeted Release Date	Area
1	Closed	3501	FINRA CAT is not reconciling MEIM/MEIC unlinked errors that are corrected by a late reported/corrected/repaired secondary MEIR in instances where the Order ID remains the same.	Code Release	High	2/8/2021	Not Applicable	Intrafirm Reporting Statistics
2	Closed	3505	FINRA CAT is not reconciling unlinked electronic duplicate errors that are corrected by a late reported/corrected/repaired manual order.	Code Release	High	2/8/2021	Not Applicable	Intrafirm Reporting Statistics

General Announcements and Reminders

Announcements

- New versions of the Phase 2c and Phase 2d <u>Technical Specifications</u> were published on February 5, 2021.
 - An updated 2c Industry Member Schema (v3.1.0 r10) was published on February 8, 2021
 - The Order Routing Field Mapping between CAT and Exchanges document was updated and published on February 5, 2021
- New versions of Phase 2a/2b and Phase 2c <u>Reporting Scenarios</u> documents were published on February 5, 2021.
- The first version of the Phase 2d <u>Reporting Scenarios</u> document was published on February 5, 2021.

Reminders

- Industry Checkpoint Calls have changed to a bi-weekly schedule until further notice.
 - The next Industry Checkpoint Call is scheduled for 3/2/21.

Upcoming Key Dates

Upcoming Key Dates for Phases 2c and 2d

Торіс	Event	Date
Industry Call: Industry Testing Checkpoint	Industry Testing Checkpoint Calls – Bi-weekly, on Tuesdays at 4:15 pm (ET)	January 7, 2020 until further notice
Compliance Go-Live	Production Go-Live for Equities 2c reporting requirements	April 26, 2021
Release Availability	Test Environment Opens for Options Phase 2d reporting requirements	June 28, 2021
Compliance Go-Live	Production Go-Live for Options 2d reporting requirements	December 13, 2021

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.

FINRA CAT Helpdesk

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