Weekly Industry Checkpoint Call

September 15, 2020

Agenda

- Production and Industry Test Release Updates
- Test and Production Statistics
- Interfirm Linkage Updates
- General Announcements & Reminders
- Upcoming Key Dates
- Q&A

Production and Industry Test Release Updates

Industry Member 2a/2b - Release 3 & 4 (Interfirm, Exchange & TRF) Release Rollout

Interfirm Release 3.1 Industry Test – 7/27/2020 Production – 8/10/2020

 Machine-to-Machine Interfirm Validations & Feedback including Named Errors

CAT Reporter Portal

- Download Interfirm Feedback including Named Errors
- Set preference for Named Feedback (JSON vs CSV)

Interfirm Release 3.2 Industry Test – 8/10/2020 Production – 8/10/2020

CAT Reporter Portal

- Reporting Summary (Interfirm Link Eligible, Errors, Warnings and Adjusted Error Rate)
- Counterparty statistics downloadable for Interfirm Unlinked and Unlinked Named Errors
- Error Code Count screen to include Interfirm Errors and Warning including Named Errors
- Error Search screen ability to view and correct Interfirm Linkage Errors (No Named Errors)

Exchange/TRF Release 4.1 Industry Test – 9/9/2020

 Machine-to-Machine Exchange/TRF Validations & Feedback including Named Errors.

CAT Reporter Portal

 Download Exchange/TRF Feedback including Named Errors. Interfirm Release 3.3 Exchange/TRF Release 4.2 Industry Test – 9/21/2020 Production – 9/28/2020

CAT Reporter Portal

- Reporting Summary (Exchange/TRF Link Eligible, Errors and Adjusted Error Rate).
- Error Code Count screen to include Exchange/TRF Errors including Named Errors.
- **New Screen including Export** for Interfirm, Exchange & TRF statistics by counterparty.
- Error Search screen
 - View and correct Exchange & TRF Linkage Errors.
 - View Interfirm Named Errors (not repairable via the Portal)

Phase 2a Interfirm/Exchange/TRF Compliance Date - 10/26/2020 Phase 2b Interfirm/Exchange Compliance Date - 1/4/2021

Test and Production Statistics

Production Data Integrity & Intrafirm Compliance Statistics Equities & Options September 8 – September 11, 2020

Product Type	Firm Count	Total Weekly Aggregate Accepted Count	Late %	Initial Rejection %	Initial Unlinked %	Initial Error %	Adjusted Error %
Equities	1,175	76,905,612,950	1.58%	0.20%	0.43%	2.04%	2.04%
Options	669	7,848,448,039	0.03%	0.44%	0.10%	0.54%	0.53%

Notes: *This is a weekly aggregation report. Average daily Accepted volume is about 19.22B for Equities and 1.9B for Options.

Overall Production Statistics September 8 – September 11, 2020

Product Type		Firm Count	Total Weekly Aggregate Accepted Count	Late %	Rejection %*	Intrafirm Unlinked %	Interfirm Sent Unlinked %	Interfirm Received Unlinked %
Equities		1,175	76,905,612,950	1.58%	0.20%	0.43%	16.11%	18.97%
Options		669	7,848,448,039	0.03%	0.44%	0.10%	20.69%	14.51%
Unknown	File Rejection %	84	1,143,122	N/A	N/A	N/A	N/A	N/A
Total	1.4081%	1,182	84,755,204,111	1.43%	0.22%	0.40%	16.15%	18.93%

*Reject % includes Ingestion and Key Duplicate Rejections from Linkage Discovery.

Interfirm Linkage Updates

Interfirm Results September 8 – September 11, 2020

Process .	EQL	JITIES	OPTIONS		
Date	Interfirm Sent Unlinked %	Interfirm Received Unlinked %	Interfirm Sent Unlinked %	Interfirm Received Unlinked %	
9/8/2020	17.02%	21.30%	20.22%	15.02%	
9/9/2020	15.88%	17.97%	18.12%	13.14%	
9/10/2020	16.02%	16.53%	21.83%	15.17%	
9/11/2020	15.36%	19.54%	22.60%	14.66%	

Interfirm Results September 8 – September 11, 2020

> Breakdown of Overall Error Rate

	Percentage of Overall Error Rate				
REASONS:	Sender (Routes)	Receiver (Accept/Modify)			
Routed Order ID mismatch					
(8003/9003)	67.23%	71.15%			
SenderIMID mismatch					
(8005/9005)	14.44%	11.85%			
ReceiverIMID mismatch					
(8007/9007)	14.52%	11.90%			
Symbol mismatch					
(8009/9009)	0.02%	0.00%			
Multiple mismatches					
(8011/9011)	3.15%	2.68%			
Route key duplicate					
(8013/9013)	0.64%	2.41%			

Interfirm Linkage Updates

- Effective September 28, 2020, FINRA CAT will remove leading zeros from the routedOrderID field for linkage purposes only in both CSV and JSON format.
 - Unlike OATS, leading zeros in the *routedOrderID* field are not rejected in CAT.
- Beginning on October 26, 2020, 9003 and 9004 Error Codes for unlinked order modification events will be eliminated from linkage feedback and linkage rate calculations.

FINRA CAT File Submission and Data Integrity Open Issues List - As of 9/15/2020

#	Status	Error Code	Summary	Resolution	Priority	Test Environment Targeted Release Date/Workaround	Production Environment Targeted Release Date/Workaround	Area
1	Open	N/A	FINRA CAT is incorrectly marking New Order Supplements as late that were submitted on a subsequent date to update an FDID of 'PENDING'. DeMinimis impact to Daily Compliance Rate and Report Cards.	Code Release	Medium	4Q 2020	4Q 2020	Statistics
2	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	To be scheduled	To be scheduled	Statistics
3	Open	N/A	FINRA CAT is incorrectly accepting timeInForce of GTD without a valid date.	Code Release	Medium	4Q 2020	4Q 2020	Ingestion Feedback & Statistics
4	Open	2007	Unable to group repair Error Code 2007 (Missing or Invalid atsDisplayInd) when the CAT Reporter IMID is a non ATS firm.	Code Release	High	9/21/2020	9/28/2020	Reporter Portal

FINRA CAT Intrafirm Open Issues List - As of 9/15/2020

#	#	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 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	Solution and/or Workaround to be provided no later than October 26, 2020	Solution and/or Workaround to be provided no later than October 26, 2020	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	4Q 2020	4Q 2020	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	4Q 2020	4Q 2020	Linker Feedback & Statistics

FINRA CAT Open Issues List -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	To be scheduled	To be scheduled	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

General Announcements & Reminders

General Announcements

- Effective September 14, 2020, Linkage Feedback availability in the Industry Test Environment will change to a target time of 6 pm ET. This change allows Industry Test to use production Exchange and TRF linkage keys without impacting Linkage Feedback processing times in the Production Environment.
- > By September 25, 2020, approximately 2,000 new test symbols will be added to the SOD/EOD lists.
 - These will be identified with the Test Flag (as test equity symbols are currently).

Latest Updates

- Fechnical Specifications Phase 2a/2b Version 2.2.1 r7 was published on 9/9/20
- The Planned Technical Specifications Updates list will be maintained on the <u>Technical Specifications</u> page of <u>www.catnmsplan.com</u>

Reporting Scenarios Phase 2a/2b Version 2.8 was published on 9/1/20

Report Card Updates

The first CAT Industry Member Compliance Report Cards for options were published on September 14, 2020

- The Report Cards can be accessed in the CAT Reporter Portal using the navigation tab on the left hand side
- > Updated Industry Member Compliance Glossary
- > Industry Member Compliance Report Card Webinar

Reporting Feedback

Error

Corrections

Report to CAT

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Reporting Relationships

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ATS Order

Types

Monthly Report Card

Monthly Report Card





Period Version August 2020 - 1

Industry Member CAT Compliance Monthly Report Card

The Industry Member CAT Compliance 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 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

Compliance Summary

CATEGORY	EQUITIES	OPTIONS	N/A ®	OVERALL
Firm Compliance Error Rate	3.0897%	1.2284%		
Firm Compliance Error Count	6,755,861	2,410	0	
Days Exceeding 5% Compliance Error Rate	3	1		
Tier	2	3		
Peer Group Compliance Error Rate	4.8556%	2.1938%		
Industry Compliance Error Rate	1.6954%	2.6139%		

Event Details

STATUS	EQUITIR	ES	OPTIONS		N/A @	OVERALL	
	Count	Rate	Count	Rate	Count	Count	Rate
Processed	218,651,594		196,185		5,561		
Accepted	217,711,061		185,198		5,557		
Late	6,738,231	3.0950%	2,410	1.3013%			
Late Reported (Available January 2021)							
Late Corrections (Available January 2021)							
Rejections	940,533	0.4301%	10,987	5.6003%	4		
Repairable Rejections	940,533	100.0000%	10,987	100.0000%	4		
Repaired Rejections	940,529	99.9995%	10,987	100.0000%	4		
Outstanding Repairable	4	0.0004%	0	0.0000%	0		
Out of Sequence	0	0.0000%					
Repaired	0						
Intrafirm Linkage Eligible	150,751,627						
Unlinked	43,799	0.0290%					
Repaired	26,142	59.6862%					

Upcoming Industry Webinars

- On Wednesday, September 16, 2020 at 10 am ET, Consolidated Audit Trail, LLC and FINRA CAT, LLC will host an industry webinar focusing on <u>Exchange Route Matching</u>
- On Thursday, September 17, 2020 Consolidated Audit Trail, LLC and FINRA CAT, LLC will host a <u>Monthly</u> <u>CAT Implementation Update</u> to provide the industry with a high level overview of materials and guidance published on the www.catnmsplan.com website during the month
 - This webinar series will be held on the third Thursday of every month at 4:15 pm ET beginning on September 17, 2020 until further notice
- On Wednesday, September 23, 2020 at 10 am ET, Consolidated Audit Trail, LLC and FINRA CAT, LLC will host an <u>Industry Webinar focusing on Phase 2c</u>, highlighting the differences from Phase 2a/2b with a specific focus on allocations

Reminders

> The CAIS LTID Industry Test environment is now open

Upcoming Key Dates

Upcoming Key Dates for Release 2a/2b

Торіс	Event	Date
Industry Call: Industry Testing Checkpoint	Weekly Industry Testing Checkpoint Calls on Tuesdays at 4:15 pm ET	Tuesdays, until further notice
Compliance Go-Live	Compliance Go-Live for Equities Phase 2a Interfirm, Exchange and TRF Compliance Date	October 26, 2020
Compliance Go-Live	Compliance Go-Live for Options Phase 2b Interfirm and Exchange Compliance Date	January 4, 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 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.

FINRA CAT Helpdesk

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