Weekly Industry Checkpoint Call

September 1, 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

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Test and Production Statistics

Production Data Integrity & Intrafirm Compliance Statistics
Equities & Options
August 24 – August 28, 2020

Product Type	Firm Count	Total Weekly Aggregate Accepted Count	Late %	Initial Rejection %	Initial Unlinked %	Initial Error %	Adjusted Error %
Equities	1,172	57,831,920,586	1.1589%	.4526%	.3403%	1.7819%	1.7782%
Options	670	6,650,770,462	8.4164%	.3966%	.1388%	8.8460%	8.8094%

Notes: *This is a weekly aggregation report. Average daily Accepted volume is about 11.3B for Equities and 1.3B for Options.

Overall Production Statistics
August 24 – August 28, 2020

Product Type	File Rejection %	Firm Count	Total Weekly Aggregate Accepted Count	Late %	Rejection %*	Intrafirm Unlinked %	Interfirm Sent Unlinked %	Interfirm Received Unlinked %
Equities		1,172	57,831,920,586	1.1589%	.4526%	.3403%	19.5325%	21.6814%
Options		670	6,650,770,462	8.4164%	.3966%	.1388%	21.1870%	15.9800%
Unknown		104	154,384	N/A	N/A	N/A	N/A	N/A
Total	1.1970%	1,180	64,482,845,432	1.9075%	.4470%	.3210%	19.5617%	21.5985%

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

Interfirm Linkage Updates

Interfirm Results
August 24 – August 28, 2020

Process Date	EQUITIES		OPTIONS	
	Interfirm Sent Unlinked %	Interfirm Received Unlinked %	Interfirm Sent Unlinked %	Interfirm Received Unlinked %
8/24/2020	22.0291%	24.0144%	20.7715%	11.8364%
8/25/2020	20.4665%	23.1434%	15.8168%	11.6055%
8/26/2020	22.0492%	22.1736%	21.8771%	15.9535%
8/27/2020	17.0934%	20.1966%	23.6586%	26.2915%
8/28/2020	17.1255%	19.6055%	23.0935%	13.5329%

Interfirm Results
August 24 – August 28, 2020

> Breakdown of Overall Error Rate

REASONS:	Percentage of Overall Error Rate	
	Sender (Routes)	Receiver (Accept/Modify)
Routed Order ID mismatch (8003/9003)	74.82%	87.35%
SenderIMID mismatch (8005/9005)	8.92%	8.91%
ReceiverIMID mismatch (8007/9007)	10.32%	10.31%
Symbol mismatch (8009/9009)	0.00%	0.00%
Multiple mismatches (8011/9011)	4.47%	4.89%
Route key duplicate (8013/9013)	1.47%	0.70%

Best Practices for Populating IMIDs on Messages Between Industry Members

➢ OATS Reporters should leverage the identifiers already used to report and match in OATS for use as Sender/Receiver IDs in CAT.

➢ Senders and Receivers must communicate with each other to **mutually agree** on the Sender/Receiver IMIDs to use for CAT Reporting.

➢ The default IMID is not intended to replace communication between Senders and Receivers.

FINRA CAT File Submission and Data Integrity Open Issues List – As of 9/1/2020

#	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	NEW– 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	NEW– 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

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

FINRA CAT Intrafirm
Open Issues List – As of 9/1/2020

#	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	Medium	To be scheduled	To be scheduled	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	To be scheduled	To be scheduled	Statistics
3	NEW– 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

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

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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

Planned Industry Member Technical Specification Updates– Last Updated 9/1/2020

#	Status	Summary	Release Date	Spec Version
1	Open	Update description of Error Codes 3004 and 3007 to state "More than one primary order event **and/or secondary order event which reassigned an Order Key"**	TBD	2a/2b
2	Open	Several error codes need to be updated to state "symbol **(or optionID)**"	TBD	2a/2b
3	Open	Several error codes need to be updated to state "Order Accepted **or Order Modified** event"	TBD	2a/2b
4	Open	Define "Processing Window" as: "the time period when data validation, linkage and corrections processing occurs prior to the construction of the lifecycle. The Processing Window for an event begins from the time it is reported to CAT and ends on the event's Trade Date + 4 at 8am."	TBD	2a/2b
5	Open	Update definition of accountHolderType value 'E' to state: "An employee or associated person of **the** Industry Member"	TBD	2a/2b
6	NEW– Open	*routeRejectedFlag* on MEOR event is currently greyed out as an optional field for 2a. This is being updated to be ungreyed as a required Boolean field, as Order Route events for rejected routes are not reportable in 2a, but the field must be populated on all Order Route events that are reported.	TBD	2a/2b

Named Feedback Updates

➢ firmROEID will be removed from Named Linkage Error Feedback.

- ◦ Named linkage error feedback represents records submitted by another firm. Specifically, named feedback is provided to the firm that was named as the destination on a Route event, or named as the Sender on an Order Accept/Modify event that was not linked during processing. Named feedback includes the linkage key, firmROEID, and values populated by the firm that reported the Route or Order Accept/Modify that was unlinked.

- ◦ Firms receiving named feedback have been attempting to correct named errors by submitting corrections using the firmROEID provided with the named error. Named errors cannot be repaired using the firmROEID provided with the named error.

- ◦ To avoid confusion for CAT Reporters, firmROEID will be eliminated from feedback for errorType 'ERRIM' and 'ERRQT'. For csv formatted feedback, the field position will remain but no value will be provided. For json formatted feedback, the field will not be included. The Technical Specifications will be updated to reflect this change.

- ◦ Will be removed in Industry Test on September 9, 2020 and in Production on September 28, 2020.

Observations

➢ Industry Members are receiving full duplicate rejections in scenarios where multiple otherwise identical routes are sent to a foreign destination simultaneously.

If an Industry Member is unable to guarantee record level uniqueness of simultaneous routes to a foreign destination without populating the *senderIMID, destination,* or *routedOrderID* fields, then the Industry Member must populate any combination of these fields on its Order Route event that will guarantee record level uniqueness.

General Announcements & Reminders

Announcement

- ➢ There is no Weekly Industry Testing Checkpoint Call scheduled for next week, September 8, 2020.

- ➢ The Weekly Industry Testing Checkpoint Calls will resume on Tuesdays at 4:15 pm ET starting on September 15, 2020.

Latest Updates

➢ [Order Routing Field Mapping between CAT and Exchanges](#) document was updated for IEX.

➢ The CAIS LTID Industry Test environment is now open.

Latest Updates– Report Cards

➢ The first CAT Industry Member Compliance Report Cards for options will be published on September 15, 2020.

➢ The Report Cards can be accessed in the CAT Reporter Portal using the navigation tab on the left hand side.

➢ A Report Card Glossary is posted to the following link: https://catnmsplan.com/industry-member-compliance-glossary.

Upcoming Key Dates

Upcoming Key Dates for Release 2a/2b

Topic	Event	Date
Industry Call: Industry Testing Checkpoint	Weekly Industry Testing Checkpoint Calls on Tuesdays at 4:15 pm ET	Tuesdays, until further notice
Report Card	Equities AND Options- Report Card Availability	September 15, 2020
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

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

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