
Industry Test Release Status

March 10, 2020

Agenda

- Industry Test Release Update
- General Announcements & Reminders
- Upcoming Key Dates
- Q&A

Industry Test Release Update

Industry Member 2a/2b – Release 1 (File & Data Integrity) Release Rollout

Live in Industry Test

11/18/2019

Industry Test Release 1.1

- CAT Reporter Portal: ATS Order Types
- CAT Reporter Portal: CAT Reporting Relationships
- Multi-Factor Authentication Enabled
- Publication of IMID & Conflict List to catnmsplan.com
- Publication of Issue/Option Symbol Reference Lists to catnmsplan.com

12/16/2019

Industry Test Release 1.2

- Industry Test Open for Machine-to-Machine File & Data Integrity Validations & Feedback
- CAT Reporter Portal: Basic File Statistics
- CAT Reporter Portal: Manual File Upload

2/24/2020

Industry Test Release 1.3

- CAT Reporter Portal: File Submission feedback
- CAT Reporter Portal: Reporting Statistics (i.e. number of records received, accepted, rejected and feedback summaries)
- CAT Reporter Portal: Error Rates
- CAT Reporter Portal: Direct data entry & corrections
- CAT Reporter Portal: Bulk Repair of applicable Syntax/Semantic Errors

03/23/2020

Industry Test Release 1.4

- Announcements
- System Status

4/20/2020 – 2a Go-Live
5/18/2020 – 2b Go-Live

- 2a Go-Live – Industry Member 2a Reporting Required on April 20
- 2b Go-Live – Industry Member 2b Reporting Required on May 18

Industry Test Status – As of March 6, 2020 Statistics

Item	Statistic – Last Week	Statistic – This Week	Increase/Decrease
Number of Firms Certified (New Metric)	8	34	Increased by 26
Number of Firms operating under CAT Reporter Agreements	1,206	1,241	Increased by 35
Number of Reporting Relationships Entered	1,388 relationships from 796 firms	1,490 relationships from 849 firms	Increased by 102 across 53 firms
Number of ATS Order Types Entered	582 order types from 21 ATS firms	603 order types from 21 ATS firms	Increased by 21 across all firms
Number of Total Submitters	120	129	Increased by 9
Number of IMIDs	482 from 393 firms	521 from 423 firms	Increased by 39 across 30 firms
Number of Files Received	503,343 • Reporter Portal: 14,867 • Private Line: 488,476	894,923 • Reporter Portal: 15,731 • Private Line: 879,192	Increased by 391,580 • Reporter Portal: 864 • Private Line: 390,716
Number of Files Rejected	106,318	321,586*	Increased by 215,268
File Reject Rate	21.12%	35.92%*	Increased by 14.80%
Number of Records Processed in Ingestion Phase (Record level validations)	26,737,231,864	43,525,212,116	Increased by 16,787,980,252
Number of Processed Records Rejected	1,718,811,167	1,990,041,154	Increased by 271,229,987
Current Reject Rate Overall of Processed Data	6.43%	4.57%	Decreased by 1.86%

* One firm had an issue in the submission process which it has corrected.

Industry Test Status – March 2– March 6, 2020 Statistics

CAT Processing Date	# Total Submitters	# of IMIDs	# of Files Received	# of Files Rejected	File Reject Rate	# of Validated Records	# of Validated Records Rejected	Validated Records Reject Rate
3/2/2020	66	299	11,224	635	5.66%	1,218,866,356	13,176,279	1.08%
3/3/2020	75	324	38,524	2,021	5.25%	3,051,872,903	6,483,861	0.21%
3/4/2020	70	311	46,222	10,819	23.41%	3,105,622,816	106,576,652	3.43%
3/5/2020	65	318	49,464	4,735	9.57%	4,919,480,485	147,468,796	3.00%
3/6/2020	73	320	257,735	197,693*	76.70%	5,711,004,048	10,700,678	0.19%
Total			403,169	215,903	53.55%	18,006,846,608	284,406,266	1.58%
						* Approx 99% Equity Events & 1% Option Events	*Approx 89% Equity Events, 7% Option Events & 4% DEL or Unparsed Events	

* One firm had an issue in the submission process which it has corrected.

Known FINRA CAT Issues – Open

#	Status	Error Code	Summary	Resolution	Priority	Targeted Release Date	Area
1	Open	2142	Space in multi-dimensional array field not treated as blank. E.g space in aggregatedOrders when representativeInd is populated as 'YF', 'YE' or 'N' – Rejecting as Invalid aggregatedOrders (Error Code 2142).	Code Release	Medium	3/23/2020	Validations
2	Open	2081	receivedQuoteID (optional for 2a) blank – Rejecting as Invalid receivedQuoteID .	Code Release	Medium	3/23/2020	Validations/ Reporter Portal
3	Open	2133	Multi-dimensional array fields in MEOTS, MOOF and MOFA events – Rejecting as invalid because portal includes additional fields (FDID and accountHolderType) that are not applicable to these specific events.	Code Release	Medium	3/23/2020	Reporter Portal
4	Open	N/A	Reporter Portal is not accurately reflecting Repair Count and Adjusted Error Rate when corrections submitted for a single day per firm exceeds 100,000. Additionally, Error Counts on Error Summary screen do not reflect errors in excess of 100,000.	Code Release	High	To be scheduled	Statistics
5	Open	N/A	Firms not getting credit for rejections corrected via a file delete instruction.	Code Release	High	3/23/2020	Statistics
6	Open	N/A	Late flag determination is incorrect for events received after 4:15 PM and reported on time.	Code Release	High	3/23/2020	Statistics
7	Open	Multiple	FINRA CAT is accepting the following scenario instead of rejecting – Future dates in some fields.	Code Release	Low	To be scheduled	Validations
8	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	Validations
9	Open	2122	Incorrect error code is generated when an array field (eg: clientDetails) is provided as a Name/Value pair.	Code Release	Low	To be scheduled	Validations

*** Known Issues List is published on www.catnmsplan.com under “Technical Specifications” ***

Known FINRA CAT Issues – Open

#	Status	Error Code	Summary	Resolution	Priority	Targeted Release Date	Area
10	Open	2153	Isolated instances of data file not readable error for well-formed JSON data files.	Under Review	Low	N/A	Validations
11	Open	1116	Isolated issue where exceeding length in file version field in metadata file – Not generating integrity failed feedback.	Code Release	Low	To be scheduled	Validations
12	Open	2019	Route event rejecting for invalid destination when destination is a NYSE floor broker booth number.	Under Review	Medium	N/A	Validations
13	Open	N/A	Isolated issue with Timeout Warnings at Integrity phase resulting in missing File Integrity feedback.	Under Review	Low	N/A	Feedback
14	NEW – Open	N/A	FINRA CAT is accepting some timestamps with an invalid syntax.	Code Release	Medium	To be scheduled	Validations
15	NEW– Open	2060	Options test symbols are being rejected.	Under Review	High	N/A	Validations
16	NEW– Open	N/A	Event Submissions count on Reporting Summary tab does not match the Event Submission by Type count in limited instances.	Code Release	High	3/23/20	Portal

Known FINRA CAT Issues – Recently Closed

#	Status	Error Code	Summary	Resolution	Workaround	Release Date	Area
1	Closed	N/A	Metadata File Rejection count does not correctly count all metadata rejection scenarios.	Code Release	None	2/24/2020	Statistics
2	Closed	2098	Equity symbols expiration/addition intra day – Rejecting as symbol not effective.	Code Release	None	2/24/2020	Validations
3	Closed	2036	handlingInstructions value of 'RAR' (optional 2a) rejecting as invalid.	Code Release	None	2/24/2020	Validations
4	Closed	2043	<i>manualOrderID</i> (optional for 2a) blank – Rejecting as Invalid <i>manualOrderID</i> when <i>electronicDupFlag</i> is populated as true.	Code Release	None	2/24/2020	Validations
5	Closed	2048	For ATS firms, <BLANK> <i>nbboTimestamp</i> if <i>nbboSource</i> is NA rejecting as invalid.	Code Release	None	2/24/2020	Validations

General Announcements & Reminders

FINRA CAT Reminders

- The Error Summary Export feature is scheduled for release prior to Go-Live.
- Error details are not available for data submitted prior to February 24, 2020.
- Certification requires a valid CAT Reporter Agreement.
- Duo MFA will not support devices running end-of-life operating systems after April 13, 2020.
- IMs must complete the CAT Clock Synchronization Certification form by March 15th of each year. Originals of the certifications forms must be maintained by IMs as part of their books and records and be available to regulators upon request.
- There is an upcoming Industry Webinar, Security of CAT Data, to be held at 3 pm ET on March 25, 2020. Please submit questions by March 18, 2020 to the FINRA CAT helpdesk.

FINRA CAT Observations

File Submission – FINRA CAT Recommended Practice

- File Submissions should be one file per IMID within specified file maximums:
 - CAT Reporter Portal: 1GB uncompressed/100,000 records
 - Machine-to-Machine: 100GB uncompressed
- Benefit to Submitters:
 - Fewer files for submitter to manage
 - Expedited feedback response

Note: SFTP (Machine-to-Machine) is **not** limited by 1GB/100,000 record limits on the Reporter Portal. Files may be up to **100GB** uncompressed which can contain significantly more than 100,000 records. As stated above, feedback times will be faster with fewer files.

Multi-Factor Authentication: Security Keys

- Effective March 2, 2020 FINRA CAT supports MFA via security keys.
- Requirements:
 - Must use a supported USB security key (WebAuthn/FIDO2 security keys)
 - Computer must have a USB-port (tokens that generate passcodes will not work).
- FINRA CAT does not endorse a specific vendor or model of key.
- Firms should perform testing to ensure the device they intend to use is compatible with Duo MFA as well as with their own operating system.
- More information is available on the Duo website:
<http://guide.duo.com/security-keys>.

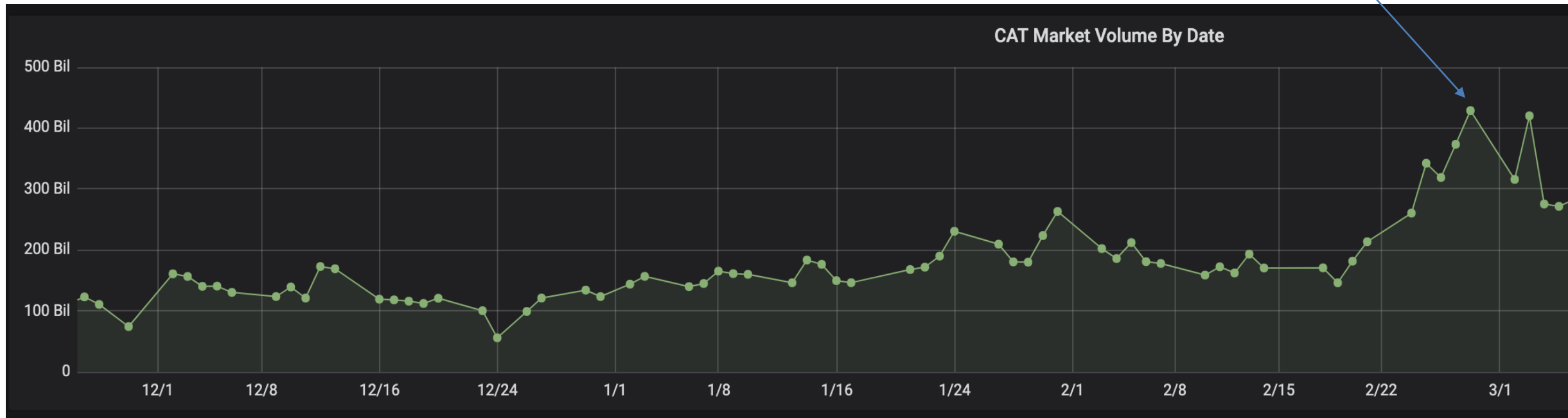
Onboarding – Certification of Production Readiness Testing

- Once CAT Reporters have completed **all** onboarding steps, including the successful completion of the Production Readiness Testing, each IM and CRA must contact the FINRA CAT Helpdesk (888-696-3348 or help@finracat.com).
- The FINRA CAT Helpdesk will require the Processing Date(s) on which the testing occurred.
- Upon verification of the Production Readiness Testing and all other Onboarding Steps by FINRA CAT, CAT Reporters will be granted access to the CAT Production Environment, and a notification confirming access will be sent.

FINRA CAT Onboarding Guide is posted at <https://catnmsplan.com/registration/>

CAT Production Plan Participant and SIP/OPRA Volume

Feb 28, 2020 – 429 Billion Records



Upcoming Key Dates

Upcoming Key Dates for Release 2a/2b

Topic	Event	Date
Industry Call: Industry Testing Checkpoint	Weekly Industry Testing Checkpoint Calls – Every Tuesday at 4:15 pm (ET)	January 7 – March 20, 2020
Industry Test Release 1.4	Industry Test Release of: - CAT Reporter Portal Announcements & System Status	March 23, 2020
Industry Call: Industry Testing Checkpoint	Daily Industry Testing Checkpoint Calls at 4:15 pm (ET)	March 23, 2020 – April 3, 2020
Industry Test Certification	Industry Members and CAT Reporting Agents must complete production readiness testing for 2a reporting	April 6, 2020
Industry Call: Industry Testing Checkpoint	Weekly Industry Testing Checkpoint Calls - Every Tuesday at 4:15 pm (ET)	April 6, 2020 – May 1, 2020
Production Readiness	Production Environment Opens for Production Readiness	April 13, 2020
Production Go-Live	Production Go-Live for Equities 2a file submission and data integrity validations	April 20, 2020
Industry Call: Production Release Checkpoint	Regularly Scheduled Weekly Industry Testing Checkpoint Calls and Status of 2a Go-Live	April 21, 2020

The timeline of Phase 2a/2b Release 1 (File Validation & Data Integrity) can be found at <https://catnmsplan.com/timeline>

Upcoming Key Dates for Release 2a/2b

Topic	Event	Date
Industry Test Certification	Industry Members and CAT Reporting Agents must complete production readiness testing for 2b reporting	May 4, 2020
Industry Call: Industry Testing Checkpoint	Daily Industry Testing Checkpoint Calls at 4:15 pm (ET)	May 4, 2020 – May 15, 2020
Production Go-Live	Production Go-Live for Options 2b file submission and data integrity validations	May 18, 2020
Industry Call: Production Release Checkpoint	Industry Call - Status of 2b Go-Live	May 19, 2020
Industry Webinar and Demo	Industry Webinar and Demo of Compliance Report Card	June 2, 2020
Production Go-Live	Release of Industry Member Compliance Report Card for Equities ONLY	June 19, 2020
Production Go-Live	Release of Industry Member Compliance Report Card including Equities and Options	July 20, 2020

How to Ask a Question during Today's Call

- **For participants using computer audio:**
 - Click the “Participants” button at the bottom of the app window, then 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