Industry Test Release Status

January 21, 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 Ind | ustry Test | | | |
|--|---|--|--|--|
| 11/18/2019 Industry Test Release 1.1 | 12/16/2019 Industry Test Release 1.2 | 2/24/2020 Industry Test Release 1.3 | 03/23/2020 Industry Test Release 1.4 | 4/20/2020 – 2a Go-Live 5/18/2020 – 2b Go-Live |
| 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 | Industry Test Open for Machine-to-Machine File & Data Integrity Validations & Feedback CAT Reporter Portal: Basic File Statistics CAT Reporter Portal: Manual File Upload | 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 | Announcements System Status | 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 January 17, 2020 Statistics

| Item | Statistic – Last Week | Statistic – This Week | Increase/Decrease |
|--|--|--|---|
| Number of Reporting Relationships Entered | 513 relationships from 283 firms | 603 relationships from 351 firms | Increased by 90 relationships and 68 firms |
| Number of ATS Relationships Entered | 453 order types from 18 ATS firms | 453 order types from 18 ATS firms | No change |
| Number of Total Submitters | 74 | 81 | Increased by 7 |
| Number of IMIDs | 210 from 149 firms | 228 from 163 firms | Increased by 18 IMIDs and 14 firms |
| Number of Files Received | 34,256 Reporter Portal: 2,446 Private Line: 31,810 | 50,243 Reporter Portal: 7,247 Private Line: 42,996 | Increased by 15,987 Reporter Portal: 4,801 Private Line: 11,186 |
| Number of Files Rejected | 5,269 | 6,193 | Increased by 924 |
| File Reject Rate | 15.38% | 12.24% | Decreased by 3.14% |
| Number of Records Processed in Ingestion Phase (Record level validations) | 1,060,500,613 | 1,909,443,267 | Increased by 848,942,654 |
| Number of Processed Records Rejected | 96,737,721 | 110,945,112 | Increased by 14,207,391 |
| Current Reject Rate Overall of Processed Data | 9.12% | 5.81% | Decreased by 3.31% |

Industry Test Status – January 14 – January 17, 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 |
|---------------------------|-----------------------|------------|------------------------|------------------------|---------------------|---------------------------|------------------------------------|----------------------------------|
| 1/14/2020 | 36 | 107 | 3,105 | 423 | 13.62% | 132,629,495 | 900,641 | 0.68% |
| 1/15/2020 | 34 | 104 | 4,594 | 323 | 7.03% | 252,882,953 | 5,576,449 | 2.21% |
| 1/16/2020 | 39 | 118 | 4,501 | 115 | 2.55% | 242,807,916 | 6,357,210 | 2.62% |
| 1/17/2020 | 42 | 124 | 4,152 | 63 | 1.52% | 220,622,290 | 1,373,091 | 0.62% |

FINRA CAT Observations

> FINRA CAT observed file and ingestion rejections due to the following:

- Missing Reporting Relationships Files will be rejected if relationships are not yet established (Error Code 1109)
- Invalid file name constructs. Examples include:
 - SubmitterID should be the Org_id or the CRD Number
 - Example: CRD = 99999999
 - file type should be OrderEvents (Case Sensitive)
- Data file name in the meta file must be the full file name including compression and extension
 - Example: 99999999_ABCD_20180919_OrderEvents_000001.json.bz2
- Case sensitivity in JSON Labels in meta data files are case sensitive
- Records with event dates prior to 11/15/2019 will result in Symbol/IMID Errors
- Files submitted prior to 8 am on T will be assigned a Process Date of T-1
 - Example: File submitted on 1/14/20 at 7:30 AM would have a Process Date of 1/13/20

Known FINRA CAT Issues – Open

| # | Status | Error Code | Summary | Resolution | Workaround | Targeted Release Date | Area |
|---|------------|---------------|---|-------------------------|------------|--------------------------|-------------|
| 1 | Open | N/A | FINRA CAT Network Team is assisting some firms with additional details related to their use of IP proxy based access. FINRA CAT is updating the Connectivity Supplement with additional firewall and URL information in support of Industry member's use of IP Proxy based access. These details are also provided in the Appendix of the 12/17 Industry Release Checkpoint Presentation. | Documentation Update | N/A | N/A | Network |
| 2 | Open | Multiple | FINRA CAT is accepting the following scenario instead of rejecting – Future dates in some fields. | Under Review | None | To Be Scheduled | Validations |
| 3 | 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) | Under Review | None | To Be Scheduled | Validations |
| 4 | Open | N/A | Metadata File Rejection count does not correctly count all metadata rejection scenarios. | Code Release | None | To Be Scheduled | Statistics |
| 5 | Open | 2098 | Equity symbols expiring intra-day rejecting as invalid. | Code Release | None | To Be Scheduled | Validations |
| 6 | Open | 2036 | handlingInstructions value of 'RAR' (optional 2a) rejecting as invalid. | Code Release | None | To Be Scheduled | Validations |
| 7 | Open – NEW | 2122 | Incorrect error code is generated when an array field (eg: clientDetails) is provided as a Name/Value pair. | Under Review | None | To Be Scheduled | Validations |

*** Known Issues List is published on <u>www.catnmsplan.com</u> under "Technical Specifications" ***

Known FINRA CAT Issues - Recently Closed

| # | Status | Error Code | Summary | Resolution | Workaround | Release Date | |
|---|--------|---------------|---|--------------|------------|--------------|-------------|
| 1 | Closed | 2099 | Reference Data timing issue with equity symbols that became effective on the day of event submission. | Code Release | None | 1/9/2020 | Validations |
| 2 | Closed | 2008 | ATS Order Types created via the Reporter Portal are being capitalized. This will result in invalid ATS Order Type rejections as validations are case sensitive. | Code Release | None | 1/12/2020 | Validations |

General Announcements & Reminders

General Announcements & Reminders

- Reminder AWS PrivateLink available in Industry Test on Monday, January 27.
- Reminder- CAT Reporter Agreement or CAT Industry Member Limited Testing Acknowledgement Form is required in order to submit data to the Test Environment.

Upcoming Key Dates

Upcoming Key Dates for Release 2a/2b

| Торіс | Event | Date |
|--|--|-----------------------------------|
| Connectivity | AWS PrivateLink available for 2a/2b machine-to-machine file submission and CAT Reporter Portal | January 27, 2020 |
| Plan Participant UAT | Plan Participant UAT begins for February Industry Test Release | February 3, 2020 |
| User Guide Publication | CAT Reporter Portal User Guide Published for February Release | February 10, 2020 |
| Industry Webinar and Demo | Regularly Scheduled Weekly Industry Testing Checkpoint Calland CAT Reporter Portal Industry Webinar and Demo of Industry Test Release 1.3 functionality | February 18, 2020 |
| Industry Test Release 1.3 | Industry Test Release of: - CAT Reporter Portal Error Correction and Feedback | February 24, 2020 |
| Industry Webinar and Demo | Industry Test Release 1.3 Go-Live Checkpoint and CAT Reporter Portal Demo of: - Submission, Error Correction & Feedback | February 25, 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 | Industry Call - Status of 2a Go-Live | April 21, 2020 |
| Industry Test Certification | Industry Members and CAT Reporting Agents must complete production readiness testing for 2b reporting | May 4, 2020 |

The timeline of Phase 2a/2b Release 1 (File Validation & Data Integrity) can be found at https://catnmsplan.com/timelines/phase-2a-2b-release.html

Upcoming Key Dates for Release 2a/2b

| Торіс | Event | Date |
|--|--|-------------------------------|
| 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