
Industry Test Release Status

December 30, 2019

Agenda

- Industry Test Release Update
- Announcements/Reminders
- Upcoming Key Dates
- Follow-Up Demo of CAT Reporter Portal Functionality
- Q&A

Industry Test Release Update

Access

CAT Reporter Portal

| Method | Industry Test URL |
|------------------------------|---|
| CAT Secure Reporting Gateway | https://srg.ct.catnms.com |
| Private Line | https://reporterportal.ct.catnms.com |
| AWS PrivateLink (January 27) | https://reporterportal-pl.ct.catnms.com |

Machine-to-Machine

| Method | Industry Test URL |
|-----------------|-----------------------|
| Private Line | sftp.ct.catnms.com |
| AWS PrivateLink | sftp-pl.ct.catnms.com |

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 December 27, 2019 Statistics

| Item | Statistic |
|--|---|
| Number of Reporting Relationships Entered | 369 relationships from 193 firms |
| Number of ATS Relationships Entered | 65 order types from 9 ATS firms |
| Number of Total Submitters | 49 |
| Number of IMIDs | 146 |
| Number of Files Received | 9,661 <ul style="list-style-type: none"> Reporter Portal: 864 Private Line: 8,797 |
| Number of Files Rejected | 2010 |
| File Reject Rate | 20.81% |
| Number of Records Processed in Ingestion Phase (Record level validations) | 236,758,193 |
| Number of Processed Records Rejected | 61,035,807 |
| Current Reject Rate Overall of Processed Data | 25.78% |

Industry Test Status – As of December 27, 2019 Statistics

| CAT Processing Date | # Total Submitters | # of IMIDs | # of Files Received | # of Files Rejected | File Reject Rate | # of Validated Records | # of Validated Records Rejected | Current Validated Reject Rate |
|----------------------------|---------------------------|-------------------|----------------------------|----------------------------|-------------------------|-------------------------------|--|--------------------------------------|
| 12/13/2019 | 3 | 2 | 365 | 365 | 100.00% | 0 | 0 | 0.00% |
| 12/16/2019 | 22 | 80 | 1944 | 1044 | 53.70% | 26,647,869 | 10,095,937 | 37.89% |
| 12/17/2019 | 24 | 75 | 2916 | 88 | 3.02% | 51,957,512 | 5,575,087 | 10.73% |
| 12/18/2019 | 22 | 38 | 1135 | 59 | 5.19% | 19,325,855 | 634,886 | 3.29% |
| 12/19/2019 | 22 | 39 | 420 | 73 | 17.38% | 28,622,765 | 13,105,408 | 45.79% |
| 12/20/2019 | 22 | 52 | 578 | 227 | 39.27% | 28,333,867 | 12,691,987 | 44.79% |
| 12/23/2019 | 20 | 44 | 1,266 | 50 | 3.95% | 26,859,653 | 10,033,121 | 37.35% |
| 12/24/2019 | 16 | 34 | 293 | 21 | 7.17% | 13,056,920 | 5,332,278 | 40.84% |
| 12/26/2019 | 17 | 40 | 428 | 50 | 11.68% | 19,627,415 | 3,092,827 | 15.76% |
| 12/27/2019 | 21 | 40 | 316 | 33 | 10.44% | 22,326,337 | 474,276 | 2.12% |
| Total | | | 9,661 | 2,010 | 20.81% | 236,758,193 | 61,035,807 | 25.78% |

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
 - Invalid file name constructs. Examples include:
 - SubmitterID is incorrect
 - fileSequence should be 6 digits
 - file type should be OrderEvents
 - Data file name in the meta file must be the full file name including compression and extension
 - Case sensitivity in JSON – Labels in meta data files are case sensitive

Known FINRA CAT Issues – Open

| Status | Summary | Resolution | Workaround | Release/Targeted Release | Area |
|--------|--|--------------|------------|--------------------------|-------------|
| Open | FINRA CAT is accepting the following scenario instead of rejecting - Equity events where the representative indicator or the fulfillment link type value is 'O'. | Code Release | None | To Be Scheduled | Validations |
| Open | FINRA CAT is accepting the following scenario instead of rejecting - Future dates in some fields. | Code Release | None | To Be Scheduled | Validations |
| Open | FINRA CAT is accepting the following scenario instead of rejecting - Route Event with Destination Type of 'E' or 'F' and Sender IMID of <BLANK>. | Code Release | None | To Be Scheduled | Validations |
| Open | 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 | None | To Be Scheduled | Validations |
| Open | For Name/Value Pair Data type fields providing a null value for a required field such as timeInForce of 'GTD' with a value of null instead of an expiration date causes ingestion processing issues. | Code Release | None | To Be Scheduled | Validations |
| Open | Metadata File Rejection count does not correctly count all scenarios such as meta block errors, invalid metadata file name, etc. | Code Release | None | To Be Scheduled | Validations |
| Open | Metadata file having base filename of data file instead of the full filename does not generate time out error on data file. | Code Release | None | To Be Scheduled | Validations |

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

Known FINRA CAT Issues – Closed

| Status | Summary | Resolution | Workaround | Release/Targeted Release | Area |
|--------|---|----------------------|------------|--------------------------|-----------------|
| Closed | <p>FINRA CAT Network Team is assisting some firms with additional details related to their use of IP proxy based access.</p> <p>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.</p> | Documentation Update | N/A | 12/20/2019 | Network |
| Closed | Allowable values included in latest Technical Specification 2.2.1 r2 need to be updated in Industry Test. | Code Release | None | 12/19/2019 | Validations |
| Closed | Acknowledgement Feedback Files only include base filename. Per specification, acknowledgements should include the full filename. | Code Release | None | 12/19/2019 | Validations |
| Closed | FINRA CAT is accepting the following scenario instead of rejecting - Values populated in 'Reserved for Future Use' fields. | Code Release | None | 12/19/2019 | Validations |
| Closed | FINRA CAT experienced an SFTP connectivity issue on December 18, 2019 at 9:37 p.m. to December 19 at 11:05 a.m. CAT Reporters were unable to submit via SFTP during this time period; however, Manual File Upload via the CAT Reporter Portal was not impacted. | Configuration Change | None | N/A | File Submission |

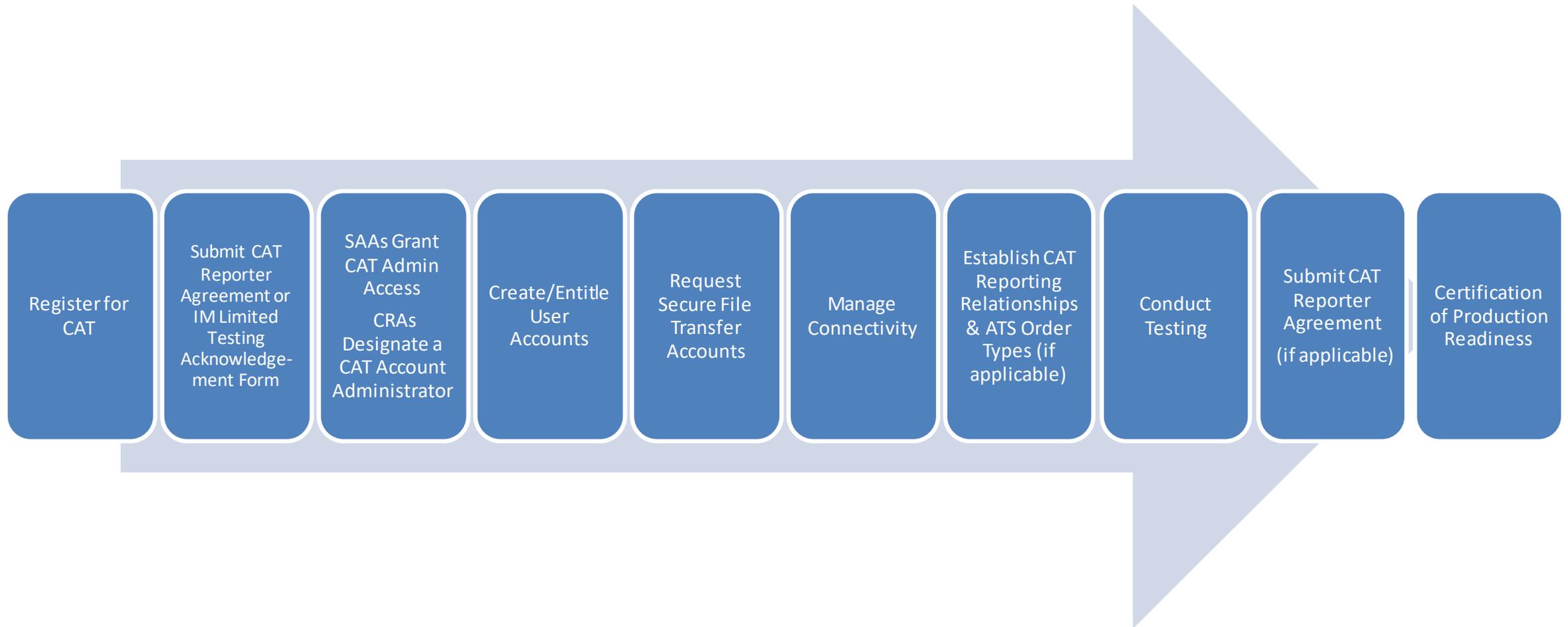
Announcements/Reminders

Change to Onboarding Requirements – Introduction of Industry Member CAT Reporter Limited Testing

- **Original Requirement:** To gain entitlement to CAT Systems, all Industry Members required to sign a CAT Reporter Agreement.
- **New Requirement:** Industry Member CAT Reporters that have not yet signed the CAT Reporter Agreement may be entitled to the IM Test Environment if they sign an ***Industry Member Limited Testing Acknowledgement Form***. Limitations:
 - IM CAT Reporters using this method will be prohibited from submitting production data. Any data must either be fabricated test data or obfuscated.
 - IM CAT Reporters **MUST** complete their Production Readiness Testing with Production data (required by April 6 for 2a and May 4 for 2b).

*** FINRA CAT anticipates publishing a *CAT Alert* describing the changes by December 18 ***

Onboarding Guideline Change – Introduction of CAT Reporter Limited Testing Form



Other Release Notes & Reminders

- Private line connectivity to CAT needs to be established and a connectivity ping test completed as soon as possible.
- If private line connectivity is NOT yet established, Industry Members may still begin testing using the CAT Reporter Portal via the Manual File Upload. Requirements for CAT Reporter Portal:
 - ✓ Industry Members must have a signed CAT Reporter Agreement or a Industry Member Limited Testing Acknowledgement Form
 - ✓ A CAT Reporter Portal CAT Admin or User account must be established
 - ✓ The SRG requires multi-factor authentication (MFA) to establish a secure, encrypted session before accessing the CAT Reporter Portal
 - ✓ No limit in choice of Internet Service Providers and no specialized client software is required to be installed other than a modern web browser (HTML5 Compatible browsers including: Chrome, Firefox and Safari)

Other Release Notes & Reminders

- Industry Members must certify with a day of Production data by April 6, 2020 for 2a and May 4, 2020 for 2b.
- Firms may use limited historical data to submit to the Industry Test Environment (from November 15, 2019 forward).

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 |
| Connectivity | Connectivity Supplement updated to include AWS PrivateLink information | January 3, 2020 |
| Industry Webinar | CAT 101 Primer Webinar | January 8, 2020 |
| Industry Webinar and Demo | Industry Webinar covering: <ul style="list-style-type: none"> - PrivateLine Connectivity & AWS PrivateLink - Review of Industry Release 1.3 Functionality and Demo | January 15, 2020 |
| 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 | CAT Reporter Portal Industry Webinar and Demo of Industry Test Release 1.3 functionality | February 14, 2020 |
| Industry Test Release 1.3 | Industry Test Release of: <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - Submission, Error Correction & Feedback | February 25, 2020 |
| Industry Test Release 1.4 | Industry Test Release of: <ul style="list-style-type: none"> - 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 |

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 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 |
| 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