CAT Reporter Portal & Reference Data

November 18, 2019

Agenda

- Connectivity and Multi-factor Authentication
- Onboarding & Entitlement
- Industry Test Release Roadmap
- Demo
- Upcoming Key Dates
- Q&A

Connectivity & Multi-Factor Authentication

CAT Reporter Portal – Connectivity Reminders

- The Reporter Portal may be accessed via:

  - Private Line (CenturyLink or BT Radianz)

  - AWS PrivateLink

  - CAT Secure Reporting Gateway
    - 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 (*e.g.* Chrome, Safari, Firefox).

- Reporter Portal requirements include:

  - TLS 1.2 requiring at a minimum NIST compliant 128 bit ciphers

  - HTML5 Compatible browsers, including: Chrome, Firefox, and Safari

  - Multi-factor authentication setup

*** Reminder: Industry Members using private lines for connectivity are strongly encouraged to begin contact with CenturyLink or BT Radianz. Additional information related to Connectivity and Multi-Factor Authentication is available in the Onboarding Guide located at https://catnmsplan.com/registration/ ***
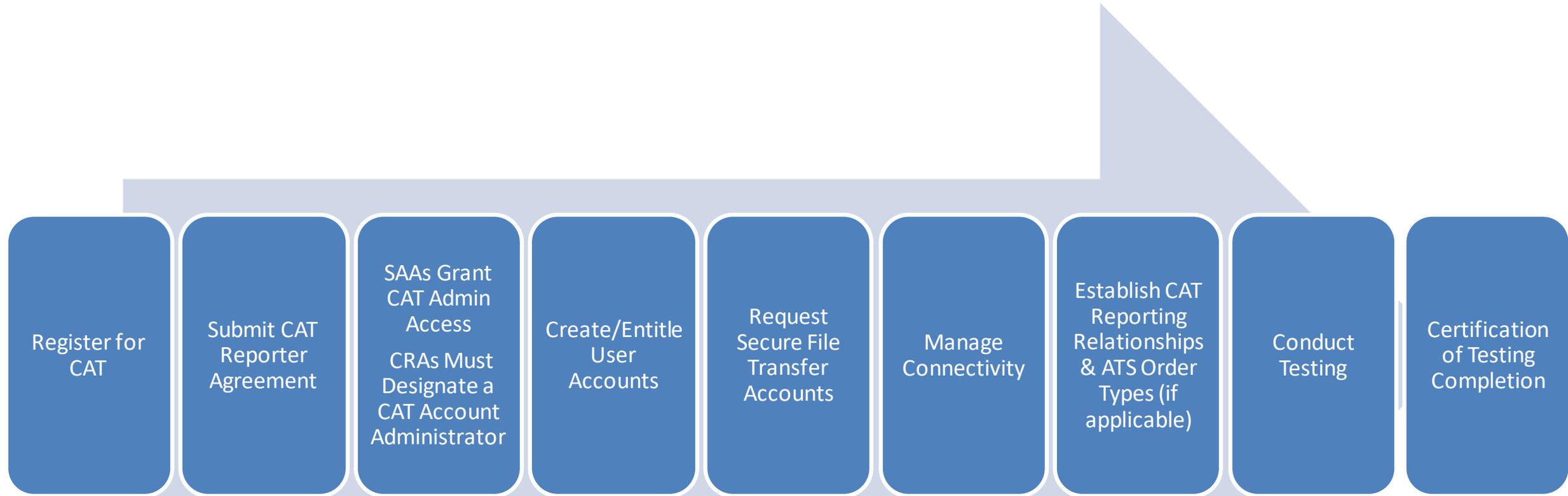
Multi-Factor Authentication

▸ FINRA CAT systems utilize multi-factor authentication, or MFA, for human user accounts, to provide an additional layer of security beyond the User ID and password required for login.

▸ Second-level authentication is provided by **Duo**, and CAT Reporter users must enroll a **smart phone** or **tablet** in the Duo service to initiate the authentication process and to use this service going forward.

▸ The Duo second-level authentication **is not** applicable to machine-to-machine accounts.

▸ MFA Requirements:
  ◦ Each user must have a smart phone or tablet, and must enroll that device in the Duo MFA service.
  ◦ The device must have a screen lock enabled.
  ◦ The device must be on an operating system that is not identified as "end-of-life".
  ◦ End-of-life operating systems are supported for a short grace period after their end-of-life date. If a user attempts to use a device with an end-of-life operating system, during that time, they will be able to authenticate, but will be notified that they need to update their operating system. After the grace period, they will no longer be able to access CAT systems without updating their operating system.

Accessing CAT Reporter Portal

Method	Production URL	Industry Test URL
CAT Secure Reporting Gateway	https://srg.catnms.com	https://srg.ct.catnms.com
Private Line	https://reporterportal.catnms.com	https://reporterportal.ct.catnms.com
AWS PrivateLink	https://reporterportal-pl.catnms.com	https://reporterportal-pl.ct.catnms.com

Onboarding & Entitlement

Reminder – Onboarding Steps

Register for CAT → Submit CAT Reporter Agreement → SAAs Grant CAT Admin Access / CRAs Must Designate a CAT Account Administrator → Create/Entitle User Accounts → Request Secure File Transfer Accounts → Manage Connectivity → Establish CAT Reporting Relationships & ATS Order Types (if applicable) → Conduct Testing → Certification of Testing Completion

*** Additional information related to Registration and Onboarding may be found at https://catnmsplan.com/registration/ ***

Entitling CAT Reporter Portal Accounts – User Roles

- User roles for the Industry Member Reporter Portal include CAT Account Administrator, CAT User, and CAT Read-Only

Task	CAT Account Admin	CAT User	CAT Read–Only
Create/Manage CAT Users (via the FINRA Entitlement system)	X		
View/Export Feedback (including announcements, reporting summaries, and error records)	X	X	X
View Reporting Relationships and ATS Order Types	X	X	X
Create/Edit Reporting Relationships	X	X	
Create/Edit ATS Order Types	X	X	
Create/Transmit data	X	X	
Repair CAT Errors (including bulk repairs)	X	X	
Create/Edit User Preferences	X	X	
Upload Data File (via Portal)	X	X	
View Monthly Report Card	X	X	X

CAT Reporter Portal Roadmap

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

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 Release 1.1 (November 18, 2019)

▶ CAT Reporter Portal functionality is live in Industry Test
  ◦ Entry and Management of CAT Reporting Relationships
  ◦ Entry and Management of ATS Order Types (ATS IMs Only)
  ◦ Multi-Factor Authentication Enabled

▶ Reference Data
  ◦ Publication of IMID & Conflict List to catnmsplan.com
  ◦ Publication of Issue/Option Symbol Reference Lists to catnmsplan.com

*** CAT Reporter Portal User Guide available on
https://catnmsplan.com/registration/ ***

CAT Reporting Relationships

- A CAT Reporting Relationship establishes a link between a CAT Reporter and a Submitter for purposes of transmitting and viewing CAT data. A relationship is comprised of:
  - **One CAT Reporter.** This identifies the firm that is required to submit data to CAT and for which data may be transmitted and viewed.
  - **One IMID.** This identifies the IMID for the CAT Reporter for which data may be transmitted and viewed.
  - **One Submitter**. This identifies the organization that may transmit and view data on behalf of the CAT Reporter/IMID.
  - **One <u>optional</u> Third-Party Reporting Agent**. When provided, this identifies the organization that may view transmitted data and initiate corrections to that data on behalf of the CAT Reporter/IMID.
- A reporting relationship must be manually created in the **CAT Reporter Portal** before a Submitter may transmit data on behalf of the CAT Reporter.
- Only the CAT Reporter can create and manage Reporting Relationships.
- A CAT Reporter may have multiple active relationships at any time.
- Self-reporting firms are **not** required or able to establish a self-reporting relationship.

> ***IMPORTANT NOTE***
> Any CAT Reporting Relationship or ATS Order Type entered into Industry Test by **April 6, 2020** will automatically be migrated to Production. Any relationship or order type entered after April 6, 2020 will also need to be entered into Production.

ATS Order Types

▸ Industry Members operating an Alternative Trading System (ATS) are required to populate the *atsOrderType* field on the CAT Equity New Order and Order Accepted events.

▸ The Industry Member must register the order type in the **CAT Reporter Portal** prior to submitting events referencing that ATS Order Type.

▸ An ATS Order Type must be registered with CAT at least 20 days prior to the effective date.

IMPORTANT NOTE
Any CAT Reporting Relationship or ATS Order Type entered into Industry Test by **April 6, 2020** will automatically be migrated to Production. Any relationship or order type entered after April 6, 2020 will also need to be entered into Production.

Reference Data – Industry Member Identifier List

▸ FINRA CAT publishes a daily list of Industry Members including for each Industry Member:

  ◦ CRD number

  ◦ All Industry Member Identifiers (IMIDs) for the firm as provided by each SRO

  ◦ The Industry Member's default IMID, as provided on the CAT registration form

▸ FINRA CAT also produces a daily IMID conflict list to identify instances where a single IMID is used by more than one Industry Member.

▸ These lists will be available for manual and machine-to-machine download at 6:00 a.m. ET.

Reminder – All reference data will be published daily on https://catnmsplan.com/reference-data/ beginning November 18, 2019

Reference Data – Equities Securities Symbol Master

▸ Lists all NMS stocks and CAT-reportable OTC equity securities representing the current transaction date.

▸ FINRA CAT will publish two files each day:

  ◦ Start of Day (SOD) - Representing the list of reportable equity securities as of the start of the transaction date (SOD) by 6:00 a.m. ET.

  ◦ End of Day (EOD)second file representing the list of reportable equity securities at the end of the transaction date (EOD) by 6:00 p.m. ET.

    • The EOD file contains any securities added during the transaction date. Securities deleted during the transaction date are not included in the EOD file.

▸ To ensure all securities reportable during any given transaction date are identified for reporting, firms are encouraged to use both the SOD and EOD files.

Reminder – All reference data will be published daily on https://catnmsplan.com/reference-data/ beginning November 18, 2019

Reference Data – Options Symbol Master

▶ A list of simple options representing the current transaction date.

▶ FINRA CAT will publish two files each day

 ◦ Start of Day (SOD) - Representing the list of reportable options as of the start of the transaction date (SOD) by 6:00 a.m. ET

 ◦ End of Day (EOD) - Representing the list of reportable options at the end of the transaction date (EOD) by 8:00 p.m. ET.

  • The EOD file contains any options added during the transaction date and provided to FINRA CAT prior to the EOD file generation as well as those listed for the entire trading day. Options deleted during the day are not included in the EOD file.

▶ The CAT Reportable Options Symbol Master does not include complex order symbols because complex orders will be reported using the option/equity symbols comprising the individual legs.

Reminder – All reference data will be published daily on https://catnmsplan.com/reference-data/ beginning November 18, 2019

Demo & Walkthrough

Demo & Walkthrough

‣ Walkthrough of Multi-Factor Authentication Enrollment

‣ Demo of User Log-in and Release 1.1 (November 18)

‣ Walkthrough of Reference Data on www.catnmsplan.com

FINra CaT™

Username

tportaluser1

Password

••••••••••••

Logon

FINRA CAT™

FINRA CAT

What is this? ⬀
Need help?

Protect Your FINRA CAT - TESTING Account

Two-factor authentication enhances the security of your account by using a secondary device to verify your identity. This prevents anyone but you from accessing your account, even if they know your password.

This process will help you set up your account with this added layer of security.

Start setup

FINГА CAT™

FINГА CAT™

What is this? ⬀
Need help?

What type of device are you adding?

- ⦿ **Mobile phone** RECOMMENDED
- ◯ **Tablet** (iPad, Nexus 7, etc.)

Continue

FINra CaT™

FINra CaT

What is this? ⤴
Need help?

Install Duo Mobile for Android

1. Launch the Google Play Store app and search for "Duo Mobile".
2. Tap "Install" to install the app.

Back   I have Duo Mobile installed

FINRA CAT™

FINRA CAT

What is this? ↗
Need help?

Activate Duo Mobile for Android

1. Open Duo Mobile.
2. Tap the "+" button.
3. Scan this barcode.

Email me an activation link instead.

Back   Continue

FINRA CAT

FINRA CAT

What is this? ⤢
Add a new device
My Settings & Devices
Need help?

Choose an authentication method

📱	Duo Push RECOMMENDED	**Send Me a Push**
📱	Passcode	**Enter a Passcode**

Enrollment successful! This is the Duo login prompt that you'll normally see when logging in. ✕

Upcoming Key Dates

Upcoming Key Dates

Date	Topic	Event

November 18, 2019	Industry Test Release 1.1	Industry Test Release of:
		- CAT Reporter Portal:
		  * CAT Reporting Relationships
		  * ATS Order Type Registration (ATS Only)
		- Reference Data:
		  * Publication of Daily Issue Symbol Reference List
		  * Publication of Daily IMID and Conflicts List

November 18, 2019	Industry Webinar and Demo	CAT Reporter Portal Industry Webinar and Demo - Multi-Factor Authentication - Industry Test Release 1.1 Functionality
December 2, 2019	User Guide Publication	CAT Reporter Portal User Guide Published for Industry Test Release 1.2 (December 16 functionality)
December 9, 2019	Industry Webinar and Demo	CAT Reporter Portal Industry Webinar and Demo of: - Industry Test Release 1.2 functionality - Basic Reporting Statistics and Manual File Upload - Industry Test Release 1.3 functionality - Submission, Error Correction & Feedback
December 16, 2019	Industry Test Release 1.2	Industry Test Release of: - Machine-to-Machine File and Data Integrity Validations & Feedback - CAT Reporter Portal Basic Reporting Statistics and Manual File Upload
December 17, 2019	Industry Webinar and Demo: Industry Testing Checkpoint & CAT Reporter Portal Demo	Industry Test Release 1.2 Go-Live Checkpoint and CAT Reporter Portal Demo of: - CAT Reporter Portal Basic Reporting Statistics - Manual File Upload
February 10, 2020	User Guide Publication	CAT Reporter Portal User Guide Published for February Release
February 14, 2020	Industry Webinar and Demo	CAT Reporter Portal Industry Webinar and Demo of Industry Test Release 1.3 functionality: - Submission, Error Correction & Feedback
February 24, 2020	Industry Test Release 1.3	Industry Test Release of: - CAT Reporter Portal Error Correction and Feedback
February 25, 2020	Industry Webinar and Demo	Industry Test Release 1.3 Go-Live Checkpoint and CAT Reporter Portal Demo of: - Submission, Error Correction & Feedback
March 23, 2020	Industry Test Release 1.4	Industry Test Release of: - CAT Reporter Portal Announcements & System Status
April 20, 2020	Production Go-Live	Production Go-Live for Equities 2a file submission and data integrity validations
May 18, 2020	Production Go-Live	Production Go-Live for Options 2b file submission and data integrity validations

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

Industry Test Release 1.2 (December 16, 2019)

- Industry Test Opens for Machine-to-Machine testing of File & Data Integrity
- CAT Reporter Portal Release of:
  - Basic File Reporting Statistics
  - Manual File Upload
    - User Role of CAT Administrator or CAT User is required
    - Files MUST meet the Technical Specification requirements (naming, syntax, compression requirements, etc.)
    - Files must be <=1GB in size AND total record count may not exceed 100,000
    - Meta and Data files are BOTH required – Data files must be submitted prior or at the same time as Meta Files
    - No limit to the number of files submitted using File Upload; however a limit of 10 files for a single submit, with max limit of 5GB
    - File and Data Integrity Feedback files submitted using Manual File Upload will also be available

Industry Test Release 1.3 (February 24, 2020)

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

Industry Test Release 1.4 (March 23, 2020)

▶ CAT Reporter Portal:
- ◦ System Status
- ◦ Announcements including status, notifications, maintenance and system outages

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