

Industry Update on the Consolidated Audit Trail

*Consolidated Audit Trail National Market System Plan
presented by the CAT NMS, LLC Operating Committee*



August 9, 2018

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Recent SRO Activity

- The Participants have commenced User Acceptance Testing (UAT) and are submitting production data in the UAT environment. The Participants are on track to complete the first UAT Cycle by August 23, 2018.
- Subsequent UAT Cycles (Cycle 2 and 3) are scheduled to commence on August 24, 2018 and September 21, 2018 respectively before the Participant go-live date of November 15, 2018
- Participants are working with Thesys CAT, industry groups and the Advisory Committee to establish interim milestones to ensure that the first phase of IM reporting begins by November 2019

Industry Reporting: Background

- The Participants have carefully considered the wide range of industry feedback received to date on scope and timing of the CAT reporting requirements for Industry Members
- The Participants plan to formally recommend the proposed timelines and scope to the SEC within the next few months (e.g., Plan amendment and/or exemptive relief, as appropriate). To date, the proposed timelines and scope have been discussed with the SEC Staff, but they have not been approved by the SEC.

IM Tech Specs: Final Single-Spec Approach

While the SROs initially considered allowing Industry Members to submit data using either an OATS-based format or the native CAT format, the SROs have determined an OATS-based format is not viable and the optimal approach is a single native CAT format (“CAT format”). The decision was driven by the following factors:

- An OATS format for equities without an OATS format for options greatly diminishes the utility of an OATS format for IM CAT Reporters that must report both equity and options
- The totality of changes required to ensure an OATS based format was CAT compliant required substantially more changes than OATS “as is” plus two to three new fields
- The eventual sunset of the OATS-based format would result in additional development effort for IM CAT Reporters that chose to initially report using the OATS-based format
- Conversion from an OATS-based format to the CAT format introduced added complexity to an already highly complex reporting framework and significantly increased implementation risk

SROs and Thesys CAT will now focus on bringing the CAT format closer to an OATS-like model to ensure the timely retirement of OATS. Areas of focus include:

- Streamlining event types where possible, including the elimination of Order Restatement events and evaluating the use of Modified and Cancel Route events
- Eliminating result timestamps for routes
- Refining the error correction process

SRO Proposed Implementation Timelines

Event	Date
Detailed Scope Finalized	August 1, 2018
Industry Test Opens	August 15, 2019
Regulatory Conformance Period Starts for Phase 2a (Equities Part 1)	November 15, 2019
2a (Equities Part 1) Go-live	November 15, 2019
Regulatory Conformance Period Ends for Phase 2a (Equities Part 1)	February 24, 2020
2b (Options Part 1) Go-live	May 31, 2020
2c (Equities Part 2) Go-live	September 1, 2020
2d (Options Part 2) Go-live	May 15, 2021
Customer and Account System	November 15, 2021
Non-OATS Small Industry Members	November 15, 2022

SRO Proposed Phase 2a Regulatory Conformance Period

To allow IM Reporters sufficient *time to test and rectify errors*, the Participants are planning to allow a three month Regulatory Conformance Period beyond the initial implementation date of November 15, 2019. This period will last until February 24, 2020.

SRO Proposed Reporting Dates by IM Reporter Type

Phase	Who Must Report	When
2a – Equities Part 1	Large Broker-Dealers	November 15, 2019
	Small Broker-Dealers that are OATS Reporters (requires SEC action)	November 15, 2019
	Small Broker-Dealers that are not OATS Reporters	November 15, 2020
2b – Options Part 1	Large Broker-Dealers	May 15, 2020
	Small Broker-Dealers that are OATS Reporters	May 15, 2021
	Small Broker-Dealers that are not OATS Reporters	May 15, 2021
2c – Equities Part 2	Large Broker-Dealers	September 1, 2020
	Small Broker-Dealers that are OATS Reporters	September 1, 2021
	Small Broker-Dealers that are not OATS Reporters	September 1, 2021
2d – Options Part 2	Large Broker-Dealers	May 15, 2021
	Small Broker-Dealers that are OATS Reporters	May 15, 2022
	Small Broker-Dealers that are not OATS Reporters	May 15, 2022
Customer and Account Data	Large Broker-Dealers	November 15, 2021
	Small Broker-Dealers that are OATS Reporters	November 15, 2022
	Small Broker-Dealers that are not OATS Reporters	November 15, 2022

SRO Proposed Phase 2a Detailed Timelines

Event	Date
Detailed Scope Finalized	August 1, 2018
FDID Guidance	August 15, 2018
Mapping of OATS Interpretive Guidance to CAT	August 15, 2018
Final Decision on Event Types (e.g., route modifications, etc.)	August 15, 2018
Publication of first draft of Spec for Phase 2a and 2b	September 5, 2018
Publish Technical Field Mapping of OATS Spec to CAT Spec	September 5, 2018
Industry Feedback Due	October 1, 2018
Publish Final Spec for Phase 2a and 2b	October 30, 2018
Industry Test Opens	August 15, 2019
Conformance Period for 2a Starts	November 15, 2019
2a Go-live	November 15, 2019
Conformance Period for 2a Ends	February 24, 2020

SRO Proposed Regulatory Conformance Period for Phase 2a

The Regulatory Conformance Period is designed to give Industry Members additional flexibility and time to fine tune the system changes and testing necessary to begin reporting in November 2019. During the three month Regulatory Conformance Period (November 15, 2019 - February 24, 2020), IM CAT Reporters would not be subject to regulatory action for failing to meeting the maximum allowable error rates or failing to correct reporting errors within the timeframes set forth in the CAT NMS Plan.

However, even during the Regulatory Conformance period, IM CAT Reporters will be required to:

1. Begin reporting all CAT reportable activity within the required timeframes (i.e., by 8 am ET the next Trading Day)
 2. Make a reasonable effort to correct system and/or coding errors promptly (i.e., when the root cause of reporting error has been identified, it must be promptly corrected so that rejections and unlinked records caused by the issue cease); and
 3. Have an adequate CAT reporting supervisory system in place.
- To the extent an IM CAT Reporter fails to (1) report, (2) identify and correct coding errors promptly, or (3) implement an adequate supervisory system, they may be subject to regulatory action

SRO Proposed Scope of Each Equities Phase (2a and 2c)

Phase 2a – Equities Part 1	Phase 2c – Equities Part 2
All events and scenarios covered by OATS	Linkages to the customer order(s) being represented for all representative order scenarios including agency average price, net trading, aggregated orders, OMS-EMS scenarios
All proprietary orders including market maker orders	Sub-account allocations
Firm Designated ID (mandatory by end of regulatory conformance period)	Rejected External Routes with flag indicating route was not accepted by receiving destination
All street side representative orders (both agency and proprietary)	Internal Route modifications and cancels
Linkage is required between the representative street side order and the order being represented when the representative order was originated specifically to represent a <u>single</u> order (received either from a customer or another broker-dealer) and there is: 1) an existing direct electronic link in the firm’s system between the order being represented and the representative order, and 2) any resulting executions are immediately and automatically applied to the represented order in the firm’s system	Unlisted quotes <u>sent</u> to an IDQS operated by a CAT Reporter
Electronic listed quotes (NMS stocks) *assumes exemptive relief request for verbal quotes	Revisit application of OATS guidance to CAT for firm modifications to previously routed orders (OATS FAQ C35) *subject to Event Type Decision
Unlisted quotes (OTC Equity Securities) <u>received</u> by a broker-dealer operating an inter-dealer quotation system (e.g., Global OTC, OTC Link) *see above comment on verbal quotes	
Unlisted quotes that meet the definition of bid or offer under the Plan sent by a broker-dealer to a quotation venue not operated by an SRO or broker-dealer *see above comment on verbal quotes	
Electronic capture time for manual orders	
Special Handling instructions on Route Reports (limited to a defined set of values)	
OATS guidance regarding firm modifications to previously routed orders (OATS FAQ C35) applies to CAT *subject to Event Type Decision	

SRO Proposed Scope of Each Options Phase (2b and 2d)

Phase 2b – Options Part 1	Phase 2d – Options Part 2
Simple electronic orders, excluding electronic paired orders	Simple manual orders
	Electronic and manual paired orders
	All complex orders with linkage to all CAT-reportable legs

Firm Designated ID (FDID)

The FDID will be required in Phase 2a and will become mandatory at the end of the Regulatory Conformance Period on February 24, 2020. It will be optional during the Regulatory Conformance Period.

- The FDID is defined in the CAT NMS Plan as “a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository, where each such identifier is unique among all identifiers from any given Industry Member for each business date”
 - Each FDID (i.e., obfuscated account number) should be unique and persistent for each Broker-Dealer. When the Customer and Account reporting begins, FDID will be used to link accounts to specific customers
 - Until the Customer and Account Database is implemented, FDID will allow regulators to identify that the same account is trading within a single Broker-Dealer
- Further guidance regarding the FDID will be provided on August 15, 2018

Update on Personally Identifiable Information (PII)

- The CAT NMS Plan currently requires the creation of a customer and account database, separate from the transactional database. Under the Plan, the customer and account database will contain certain customer identifying information, including name, address, DOB, and SSN/ITIN. The Plan contemplates the inclusion of SSN as it is the means by which a Customer-ID can be created so that individual customers can be uniquely identified across broker-dealers for use in cross market surveillance, market reconstruction, and investigative efforts.
- In an effort to minimize the amount of customer identifying information captured and stored in CAT, while still achieving the regulatory objectives of CAT, the SROs, through the PII Working Group, in consultation with the Advisory Committee, have evaluated possible alternatives to the current Plan requirements.
- The SEC staff suggested an alternative that keeps the current Plan requirements, but instead of the CAT retaining an actual SSN and DOB for natural persons, the CAT would maintain a non-reversible secure hash value representing the SSN and DOB. This alternative also envisions making certain less sensitive customer information (zip code, YOY) available for querying along with information in CAT transactional database.
- Recently, SIFMA recently responded with an alternative approach that would provide for the creation of a Customer-ID for individuals investors through the submission of SSN and DOB information, but without the submission of other customer identifying information to CAT. That other information would be retained by firms and made available to CAT Regulatory Users through an FDID Request/Response system.
- The CAT Master Plan calls for the CAT Operating Committee to decide by August 15, 2018 which, if any, of the alternatives to pursue as part of the customer and account information specifications.
- The next CAT Master Plan date related to this effort is October 15, 2018, at which time the Participants are to finalize the customer and account information database requirements and provide the SEC Staff with draft Plan amendments, if necessary.

Accessing Interpretive FAQs on the CAT NMS Website

- The below snapshot illustrates how to access the interpretive FAQs through the CAT NMS website



The screenshot shows the top navigation bar of the CAT NMS website. The menu items are: Home, About CAT, How it Works, Training, News, FAQ, and Technical Specifications. The 'FAQ' menu item is expanded, showing two sub-options: 'General FAQ' and 'Interpretive FAQ'. The 'Interpretive FAQ' option is highlighted with a yellow box, and a yellow arrow points to it from the right. Below the navigation bar, the main heading reads 'THE CONSOLIDATED AUDIT TRAIL'. To the left of the main text is a large white-bordered box containing the text 'THE CONSOLIDATED AUDIT TRAIL' and a 'Scroll for More' link with a downward arrow. To the right of this box, there are two paragraphs of text explaining the purpose of the Consolidated Audit Trail.

Home About CAT How it Works Training News **FAQ** Technical Specifications

General FAQ
Interpretive FAQ

THE CONSOLIDATED AUDIT TRAIL

THE CONSOLIDATED AUDIT TRAIL

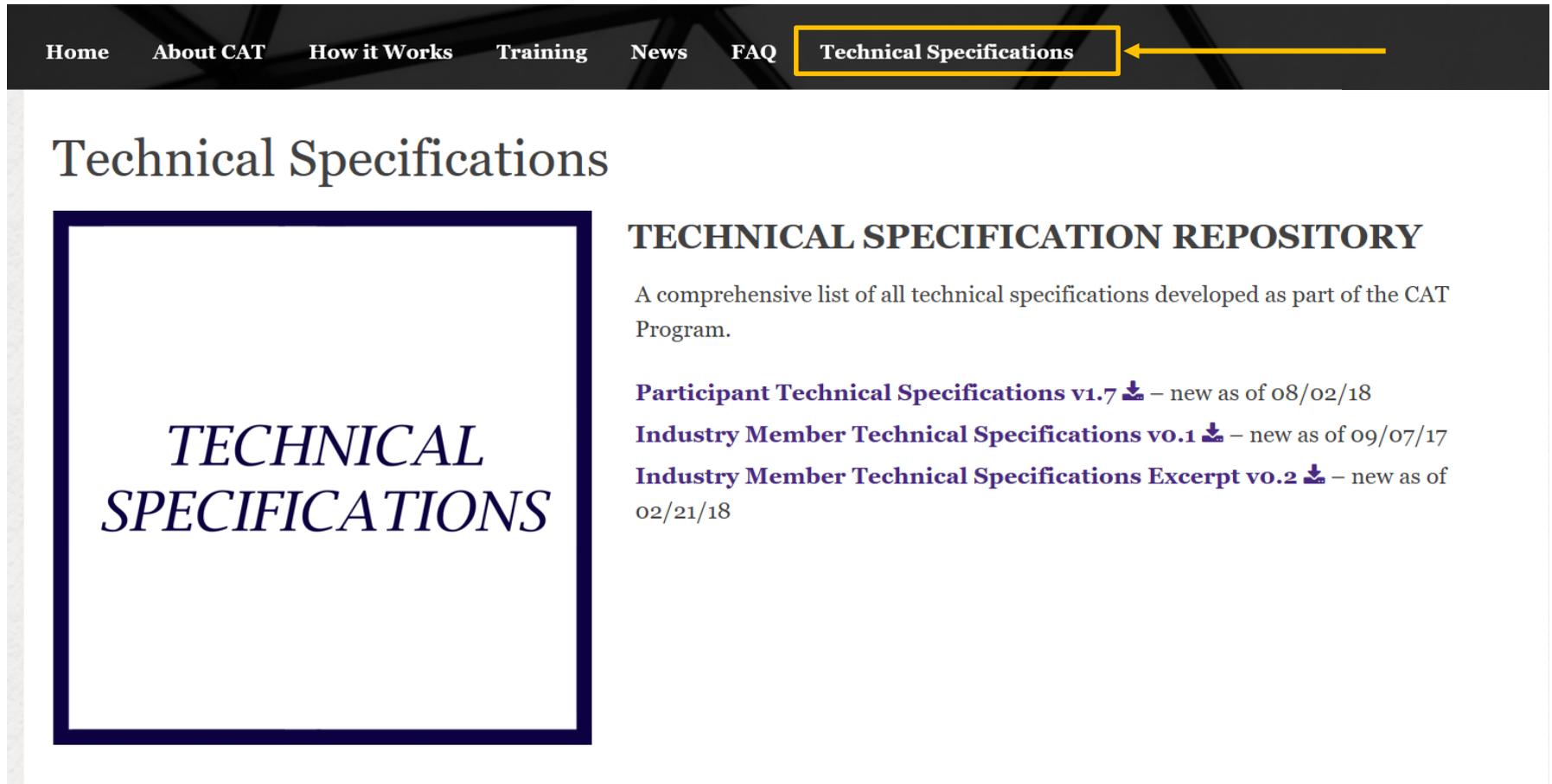
Scroll for More ∨

The Consolidated Audit Trail will track orders throughout their life cycle and identify the broker-dealers handling them, thus allowing regulators to more efficiently track activity in Eligible Securities throughout the U.S. markets.

The primary goal of Securities and Exchange Commission (**SEC**) **Rule 613** is to improve the ability of the SEC and the Self-Regulatory Organizations (SROs) to oversee trading in the US securities markets.

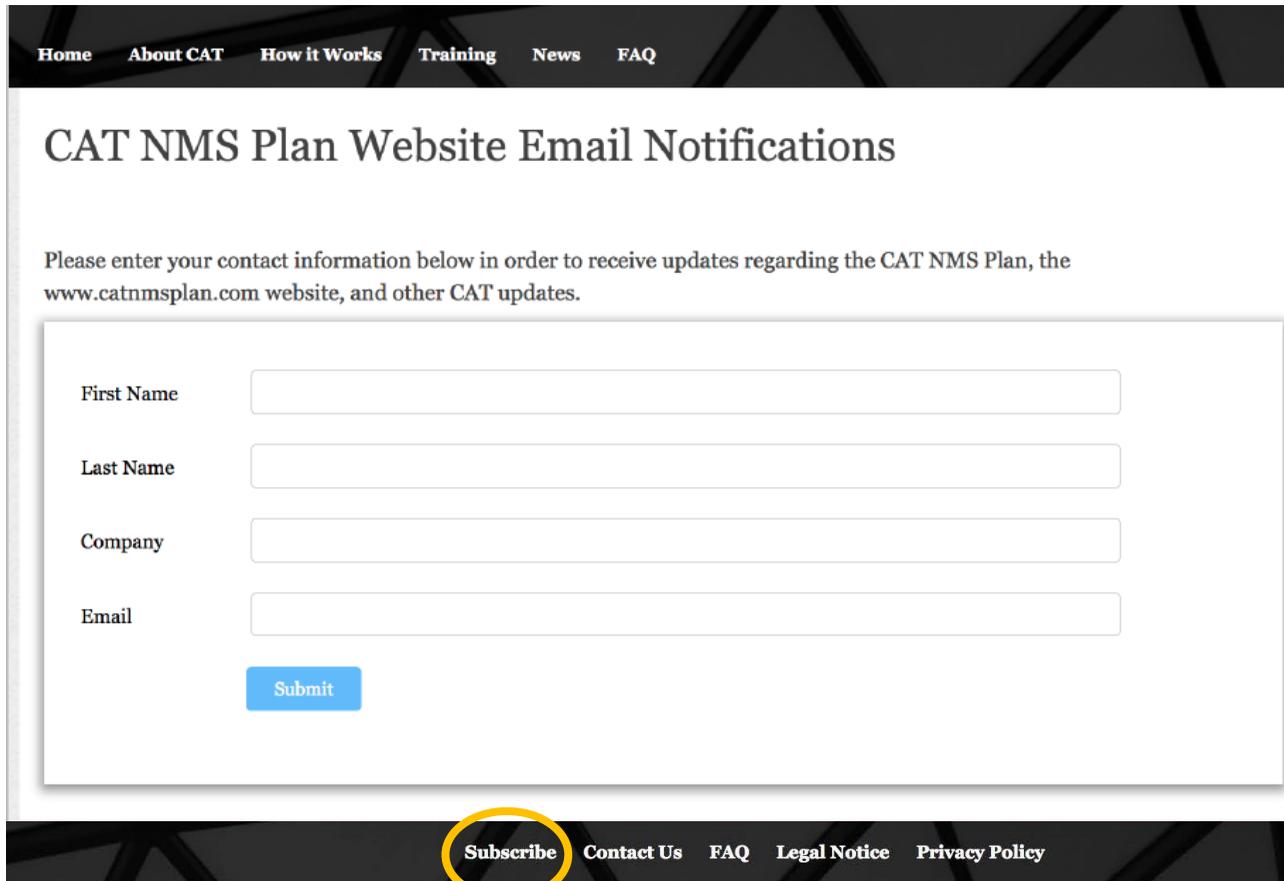
Accessing Tech Specs on the CAT NMS Website

- The below snapshot illustrates how to access the Tech Specs through the CAT NMS website



CAT NMS Plan Website Subscription

The CAT NMS website (www.catnmsplan.com) has launched a subscription feature to receive periodic updates regarding CAT implementation



The screenshot shows the 'CAT NMS Plan Website Email Notifications' form. At the top, a dark navigation bar contains links for Home, About CAT, How it Works, Training, News, and FAQ. The main heading is 'CAT NMS Plan Website Email Notifications'. Below the heading, a paragraph reads: 'Please enter your contact information below in order to receive updates regarding the CAT NMS Plan, the www.catnmsplan.com website, and other CAT updates.' The form contains four input fields: 'First Name', 'Last Name', 'Company', and 'Email'. A blue 'Submit' button is located below the 'Email' field. At the bottom of the page, a dark footer bar contains links for 'Subscribe', 'Contact Us', 'FAQ', 'Legal Notice', and 'Privacy Policy'. The 'Subscribe' link is highlighted with a yellow circle, and a yellow arrow points upwards to it.

CAT Help Desk

- The CAT help desk is now live and can be reached in the following ways:
 - **Email Address:** helpdesk@thesyscat.com
 - **Phone Number:** (833) CAT-SERV or (833) 228-7378
 - **Hours of Operation:** 9AM-5PM Eastern Time (Weekdays only)
- Currently, the help desk is available to address general questions relating to the following topics:
 - CAT NMS website
 - Media relations
 - Go-live dates
 - Technical Specifications (e.g., publication schedule)
 - CAT users
 - System security
 - Billing
- For additional information please visit the CAT NMS website (www.catnmsplan.com)

Questions?