

# Industry Update on the Consolidated Audit Trail

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



February 20, 2019

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# Plan Processor Transition from Thesys CAT

- As previously announced CAT NMS, LLC is transitioning the Consolidated Audit Trail (“CAT”) project to a successor Plan Processor
- A successor Plan Processor has not yet been selected, but the SROs have identified a potential successor Plan Processor and are actively working toward selection in accordance with the CAT NMS Plan
- During the transition phase, Thesys CAT is providing transition services to ensure an orderly and secure transition of data to CAT NMS, LLC
- The transition plan includes retaining both the Participant Technical Specifications and the Industry Member Technical Specifications in substantially the same format as previously approved by the Operating Committee
- The proposed timelines and scope which follow are subject to approval by the SEC

# Impact of Transition on Industry Members

- **The Participants have made the decision to keep the IM Technical Specifications in their current form** and the successor Plan Processor will implement Phase 2 using the existing design as reflected in v1.0. The Participants do not intend to move to any other format.
- **Industry Member testing will still begin in 2019 with the first production date in April 2020.** Industry Members should plan development activities to these implementation dates.
- CAT NMS, LLC will continue to address interpretive issues and communicate decisions through FAQs during the successor Plan Processor selection process

# Industry Member Tech Specs

- As stated, there will be no material design changes to the IM Technical Specifications as approved by the Operating Committee and published in October 2018. Industry Members should continue with their development efforts as originally planned.
- The successor Plan Processor will be required to support the IM Technical Specifications design as reflected in v1.0 approved by the Operating Committee and published on the CAT NMS website in October 2018
- CAT NMS, LLC will require the successor Plan Processor to include error feedback and correction mechanisms adequate to support the IM error correction timeframes prescribed by the CAT NMS Plan. Such mechanisms must include UI and machine-to-machine feedback and error correction tools.
  - The successor Plan Processor will work with Industry Members to ensure such tools are adequately designed

# Phase 2a/b IM Tech Spec Publication Timeline

**2/22/2019**



Re-publish v1.0 (as v1.01) to reflect transition from Thesys CAT

**2/28/2019**



Publish draft v1.1 and scenario updates on 2/28 to reflect industry feedback received through January 2019

**3/29/2019**



Publish second draft v1.1 and updated scenarios on 3/29 with new Sections 6 and 7 (submission, feedback and error correction)

**4/29/2019**



Publish final v1.1 and Reporting Scenarios on 4/29 including error correction and connectivity sections

# Updated SRO Proposed Industry Implementation Dates

- CAT NMS, LLC has developed an implementation timeline with the following main objectives:
  - Implement Phase 2 reporting in as timely a manner as possible
  - Ensure the successor Plan Processor has adequate time to complete its development and testing requirements
  - Provide a rollout process for IMs that addresses industry concerns about the challenges of testing multiple functional requirements concurrently (e.g., data integrity checks while attempting linkages)
- The resulting implementation plan includes submission of all data, including all linkage keys, beginning in April 2020 but introducing data integrity and linkage validations incrementally, beginning with basic data integrity checks and then enabling the various linkage validations in stages
- Given the elongated implementation plan for Phase 2a, CAT NMS, LLC no longer believes that a Regulatory Conformance Period is necessary

# CAT Reporting Timelines by Phase – Large Industry Members (1/2)

Phase	Event		Date	Regulatory Requirement
2a Equity	Phase 2a: File Submission & Data Integrity	Industry Testing – File Submission & Data Integrity Validations include only those that would result in the rejection of a record (e.g., invalid format, invalid symbol)	December 2019	IMs will be required to submit a file successfully to test prior to being given access to Prod
		File Submission and Data Integrity Validations – Go Live	April 2020	IMs will be required to submit <u>all</u> Phase 2a data everyday by 8 am T+1 and correct all <u>rejected</u> data by 8 am on T+3
	Phase 2a: Intra-Firm Linkage	Industry Testing – Intra-Firm Linkage Validations Enabled in Test	April 2020	Test requirements still under discussion
		Intra-Firm Linkage Validations – Go Live	July 2020	IMs must correct all Intra-firm linkage errors <i>by 8 am on T+3</i>
	Phase 2a: IM-to-IM Linkage (Inter-Firm Linkage)	Industry Testing – IM-to-IM Linkage Validations Enabled in Test	July 2020	Coordinated industry testing – specific plans in development
		IM-to-IM Linkage Validations – Go Live	October 2020	IMs must correct all IM to IM linkage errors <i>by 8 am on T+3</i>
	Phase 2a: Exchange and TRF Linkage	Industry Testing – Exchange and TRF Linkage Validations Enabled in Test	September 2020	Coordinated industry testing – specific plans in development
		Exchange and TRF Linkage Validations – Go Live	October 2020	IMs must correct all Exchange and TRF linkage errors <i>by 8 am on T+3</i>

## CAT Reporting Timelines by Phase – Large Industry Members (2/2)

Phase	Event		Date	Regulatory Requirement
<b>2b Options</b>	Phase 2b: File Submission & Data Integrity	Industry Testing – File Submission & Data Integrity Validations include only those that would result in the rejection of a record (e.g., invalid format, invalid symbol)	December 2019	IMs will be required to submit a file successfully to test prior to being given access to Prod
		File Submission and Data Integrity Validations – Go Live	May 2020	IMs will be required to submit <u>all</u> Phase 2b data everyday <i>by 8 am T+1</i> and correct all <u>rejected</u> data <i>by 8 am on T+3</i>
	Phase 2b: Intra-Firm Linkage	Industry Testing – Intra-Firm Linkage Validations Enabled in Test	April 2020	Test requirements still under discussion
		Intra-Firm Linkage Validations – Go Live	August 2020	IMs must correct all Intra-firm linkage errors <i>by 8 am on T+3</i>
	Phase 2b: IM-to-IM Linkage (Inter-Firm Linkage)	Industry Testing – IM-to-IM Linkage Validations Enabled in Test	July 2020	Coordinated industry testing – specific plans in development
		IM-to-IM Linkage Validations – Go Live	October 2020	IMs must correct all IM to IM linkage errors <i>by 8 am on T+3</i>
	Phase 2b: Exchange Linkage	Industry Testing – Exchange Linkage Validations Enabled in Test	September 2020	Coordinated industry testing – specific plans in development
		Exchange Linkage Validations – Go Live	December 2020	IMs must correct all Exchange linkage errors <i>by 8 am on T+3</i>

## OATS Retirement

- Impact of the revised Phase 2a implementation schedule on the planned OATS retirement timeframe is currently under consideration by FINRA. As stated in FINRA's original OATS retirement filing, error rates will be a key factor in determining when OATS can be retired.

# Clock Synchronization Certification

## Definition of “Business Clock”

- “Business Clock” means a clock used to record the date and time of any Reportable Event required to be reported under SEC Rule 613

## Summary of Requirements

- Industry Members are to synchronize their Business Clocks **not used solely for Manual Order Events or for the time of allocation on Allocation Reports** at a minimum to **within 50 milliseconds** of the time maintained by the National Institute of Standards and Technology (NIST)
- Industry Members are to synchronize their Business Clocks **used solely for Manual Order Events** at a minimum **to within 1 second** of the time maintained by the NIST

## Annual Certification

- Industry Members **should have certified** that their Business Clocks meet the requirements of the Compliance Rule **on 3/15/19**
- Updated certification forms will be made available on the CAT NMS website and must be kept as part of a firm’s books and records; Industry Members are not required to submit such certifications to the exchanges or FINRA.
- Industry Members who are members of multiple Participants need only make a single clock synchronization certification

# CAT Help Desk & CAT NMS Website

- As part of the Plan Processor transition previously announced and as of February 12<sup>th</sup>, the CAT Help Desk has been transitioned from Thesys CAT to CAT NMS, LLC. The Help desk will transition to the successor Plan Processor once selected.
- Previously opened issues have been transitioned to CAT NMS, LLC for tracking and resolution. During the transition period, industry questions may be submitted to [CATNMSIO@deloitte.com](mailto:CATNMSIO@deloitte.com).
- Phone helpdesk services with the successor Plan Processor will be restored at a future date
- For additional information please visit the CAT NMS website ([www.catnmsplan.com](http://www.catnmsplan.com))
- This webcast presentation will be uploaded onto the CAT NMS website for public reference

# Accessing Technical Specifications/Scenarios on the CAT Website

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

Home About CAT News FAQ CAT Alerts **Technical Specifications**

## Technical Specifications

**TECHNICAL SPECIFICATIONS**

### TECHNICAL SPECIFICATION REPOSITORY

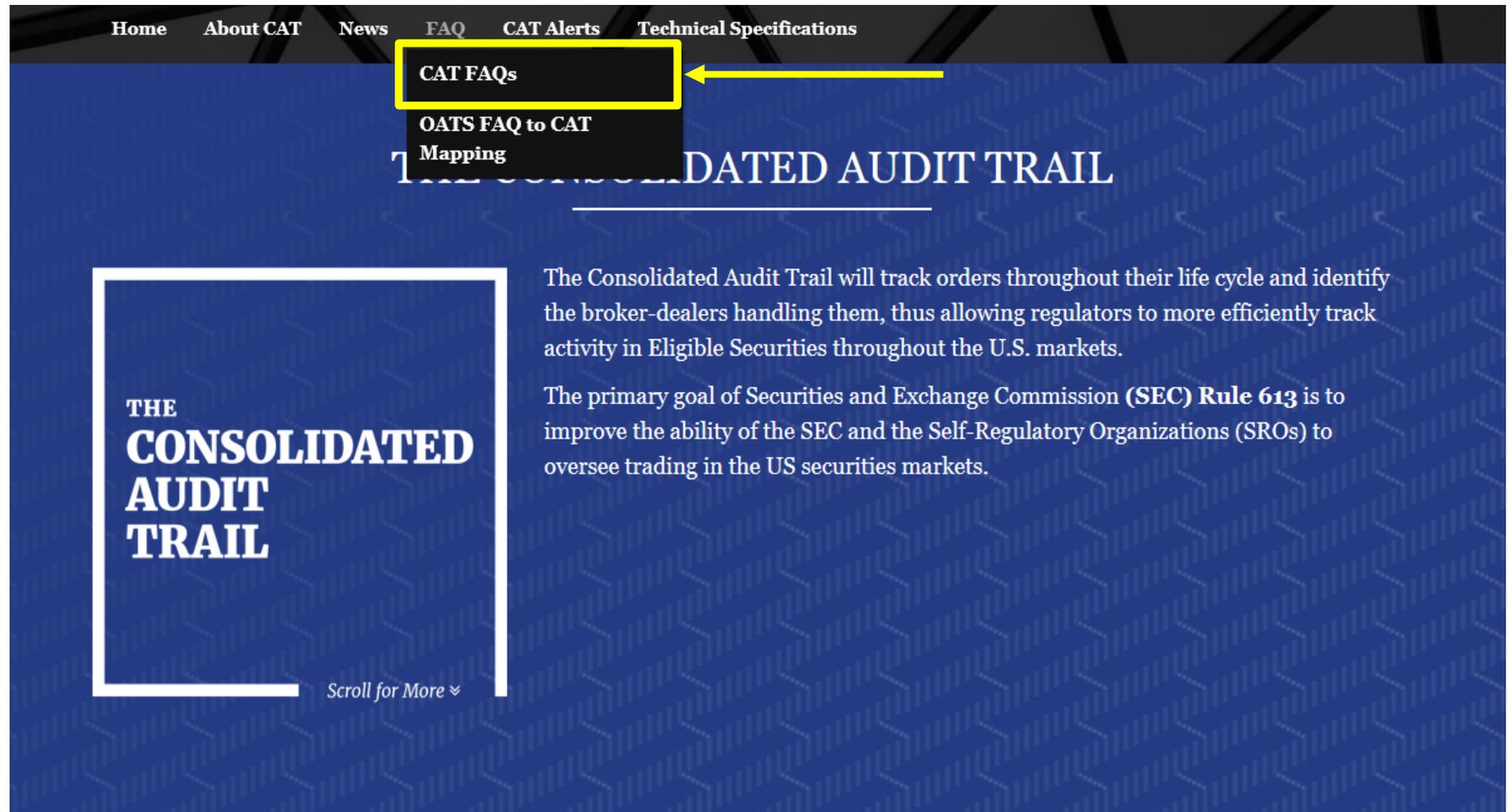
A comprehensive list of all technical specifications developed as part of the CAT Program.

- Industry Member Technical Specifications v1.0** 📄 – new as of 10/30/18
- Industry Member Technical Specifications Scenarios v1.0** 📄 – new as of 10/30/18
- OATS to CAT Events Field Level Mapping** 📄 – new as of 09/05/18  
(SHA-256 4ec988a7a439b4fe29c6d756cd4a2408242c1d8b42aedf705d79ec81e6ba724e)
- OATS FAQ to CAT Mapping** 📄 – new as of 08/15/18
- Participant Technical Specifications v1.7.1** 📄 – new as of 09/09/18

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# Accessing Interpretive FAQs on the CAT NMS Website

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



# CAT NMS Plan Website Subscription

The CAT NMS website has launched a subscription feature to receive periodic updates regarding CAT implementation

The screenshot shows a website page for email notifications. At the top is a dark navigation bar with links: Home, About CAT, News, FAQ, CAT Alerts, and Technical Specifications. The main heading is "CAT NMS Plan Website Email Notifications". Below this is a paragraph: "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 positioned below the "Email" field. At the bottom of the form area, it says "Please click **HERE** if you would like to unsubscribe from notifications". The footer is dark and contains the text "Copyright 2018 CAT NMS LLC" and a "Subscribe" link circled in yellow with a yellow arrow pointing to it. Other footer links include "Contact Us", "FAQ", "Legal Notice", and "Privacy Policy".

**Questions?**