Industry Update on the Consolidated Audit Trail

An industry update on the progress of the Consolidated Audit Trail National Market System Plan presented by the CAT NMS, LLC Operating Committee

February 28, 2018

Agenda

- High-Level CAT Overview
- Implementation Update
- Recent SRO Activity
- Recent Working Group Activity
- Update on Industry Member Technical Specifications
- Clock Synchronization Certification
- CAT NMS Plan Website Subscription
- CAT Help Desk
- Q&A

High-Level CAT Overview

General Requirements

- All **Equities and Options order life cycle events** will be required to be reported. The scope of equities events is broader than current OATS requirements and includes quotes and market maker orders and enhanced linkages between representative orders and customer orders
- Reporting firms will have to provide **unique identifiers** for these records to support CAT linkage processes both within a CAT Reporter and across CAT Reporters
- **Customer-identifying information** must be included, which will require reporting firms to locate customer "golden source" data
- Unlike OATS, there will be **no exemptions** from these reporting requirements

Reportable Events

- CAT Reportable Events will include:
  - Receipt or origination of an order
  - Routing of an order to another market participant
  - Routing of an order between desks or departments
  - Modifications
  - Cancellations
  - Executions
  - Allocations

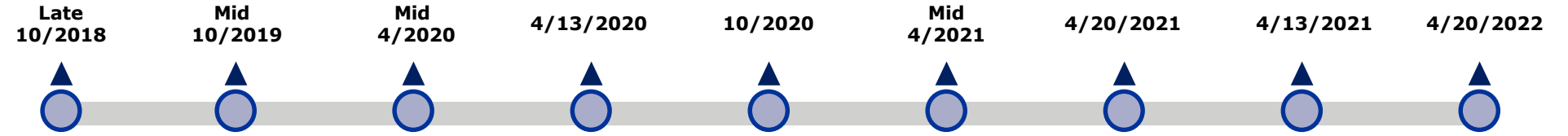
Customer and Account Information

- CAT requires the reporting of "Customer Account and Identifying Information", which includes the following:
  - Firm Designated ID
  - Account number
  - Account type
  - Customer name, address, and type
  - Customer SSN or TIN
  - Date account opened
  - Large Trader ID (if applicable)
  - Legal Entity Identifier (if available)

Implementation Update

- The SEC has not provided additional information beyond what has previously been communicated – the milestone dates from the Exemptive Request still hold as of 2/28

- The SROs recognize that this lack of clarity is not ideal and are working with the SEC to get additional guidance on milestone and implementation dates



Anticipated completion of **Industry Member Tech Specs** (Order and Customer Data)

Anticipated completion of implementation by **Large** Industry Members of the Industry Member Tech Specs

Anticipated completion of testing by **Large** Industry Members of their systems and ability to report to the Central Repository

Large Industry Members will begin reporting Industry Member Data to the Central Repository

Anticipated completion of implementation by **Small** Industry Members of the Industry Member Tech Specs

Small Industry Members to complete testing of their systems and ability to report to the Central Repository

Small Industry Members requirement to begin reporting Industry Member Data to the Central Repository

Change in **Large** Industry Members Maximum Error Rate from 5% to 1%

Change in **Small** Industry Members Maximum Error Rate from 5% to 1%

Recent SRO Activity

- The SROs unanimously **approved Vas Rajan as Chief Information Security Officer (CISO)** of Thesys CAT. Vas will commence his tenure on **March 1, 2018** and will be responsible for ensuring **security compliance of the CAT System** as well as evolving and executing cybersecurity programs as the CAT platform advances from build to live.

- A draft excerpt of previously unpublished **sections of the Industry Member Technical Specifications** has been **published on the CAT NMS Plan website** with the content outlined in these sections pending Operating Committee approval

- SROs, Thesys CAT, and the Advisory Committee have **published FAQs** for the initial set of interpretative issues that have been resolved to-date on the CAT NMS Plan website and are continuing the **detailed review of open interpretive items** relating to the Industry Technical Specifications. The SROs understand the importance of these to industry implementation and are working to provide as much guidance as possible.

Recent Working Group Activity

PII Working Group

- **Alternatives to PII** have been socialized with FIF, SIFMA, and STA

Normalization Working Group

- The Operating Committee **approved an approach for normalization** of Industry data
- The approach requires all fields capturing the terms and conditions of an order to be populated with **standard values**

Interpretive Working Group

- **FAQs** regarding CAT requirements applicable to Industry Members have been **published on the CAT NMS website** and include topics such as reportable NBBO information, IOIs, timestamps for Manual Order Events, internal routes, and foreign securities
- The Interpretive FAQs page will be updated as new interpretive items are resolved
- Questions regarding the FAQs should be directed to the **CAT Help Desk**

Cost and Funding Working Group

- The SROs continue to discuss the Fee model and are committed to establishing **equitable Industry Member fees**

Accessing Interpretive FAQs on the CAT NMS Website

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

Accessing Tech Specs on the CAT NMS Website

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

Update on Industry Member Technical Specifications (1/2)

- Thesys CAT published the initial version of the **Submission Process, Feedback and Corrections, Testing, and CAT Reporter Resources** sections of the Industry Member Technical Specifications on 2/21; these excerpts are available on the CAT NMS website for industry comment.

- Thesys CAT and the Participants continue to **collaboratively work through the feedback received** on the draft Industry Member Technical Specification version 0.1 that was published on catnmsplan.com in early September 2017

- The industry raised a number of important issues that Thesys CAT and the Participants are working to address; these issues, which include the Trading Day definition and order event types, are being carefully considered and **an updated version of the spec** will be published in the coming months

- The SROs recognize the need for **adequate implementation time** once specs are finalized, and will continue to work with the SEC on this

Update on Industry Member Technical Specifications (2/2)

Submission Format

- All files must be compressed, encrypted, and signed
- All files must have a unique file name – guidelines in spec
- Metadata describing the file must also be included with each submission – guidelines and example in spec
- Files may be submitted in JSON or CSV format

Submission Process

- Files may be submitted via either SFTP or the Reporter Web Portal
- Only files that have a .pgp or .gpg extension will be processed when uploaded to SFTP
- Multi-factor authentication token required to access SFTP / Reporter Web Portal
- Submission and feedback timelines provided in specifications

Feedback and Corrections

- File status, report statistics, and system status all available via Reporter Web Portal
- File status also available by SFTP
- Acknowledgement and Feedback files are sent by CAT to confirm receipt and describe failures in file integrity or order event data
- Corrections made manually via web portal or by uploading correction data files (repair files)
- A correction file (repair file) provides instructions to delete or correct entries in a submitted file

Testing and CAT Reporter Resources

- CAT will provide an environment for testing
- Testing environment will perform lifecycle linkage
- Firms should test their submission using the testing environment before they begin submitting to production environment
- Reporting statistics are available via the CAT Reporter Web Portal on a daily basis
- CAT Help Desk currently available
- Public website offers email notification subscription

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

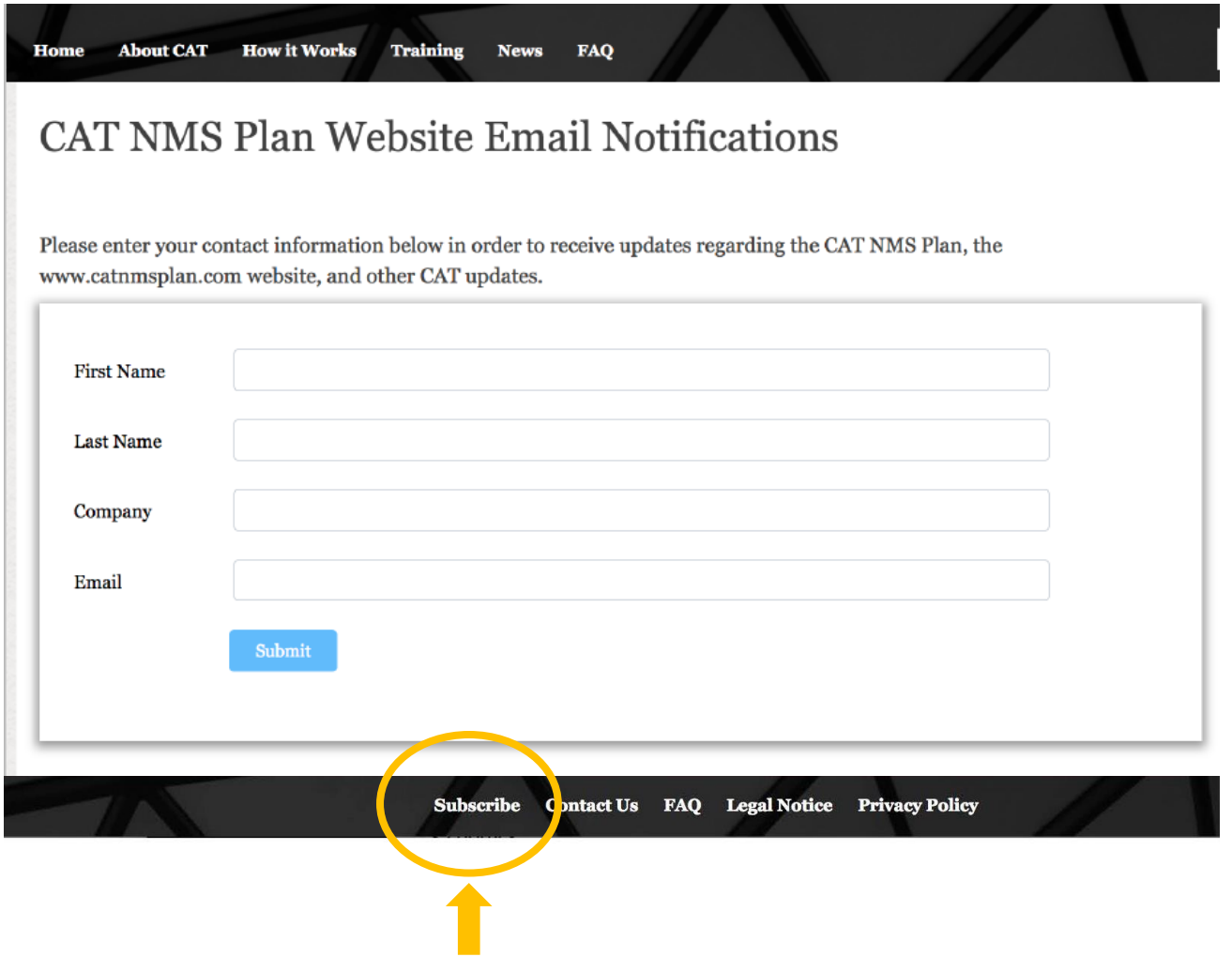
- Industry Members are to synchronize their Business Clocks **not used solely for Manual Order Events or for the time of allocation on Allocation Reports** at a minimum to **within 50 milliseconds** of the time maintained by the National Institute of Standards and Technology (NIST)
- Industry Members 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 must **certify** that their Business Clocks meet the requirements of the Compliance Rule **by 3/15/18**
- 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 NMS Plan Website Subscription

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



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

Questions?