

Consolidated Audit Trail

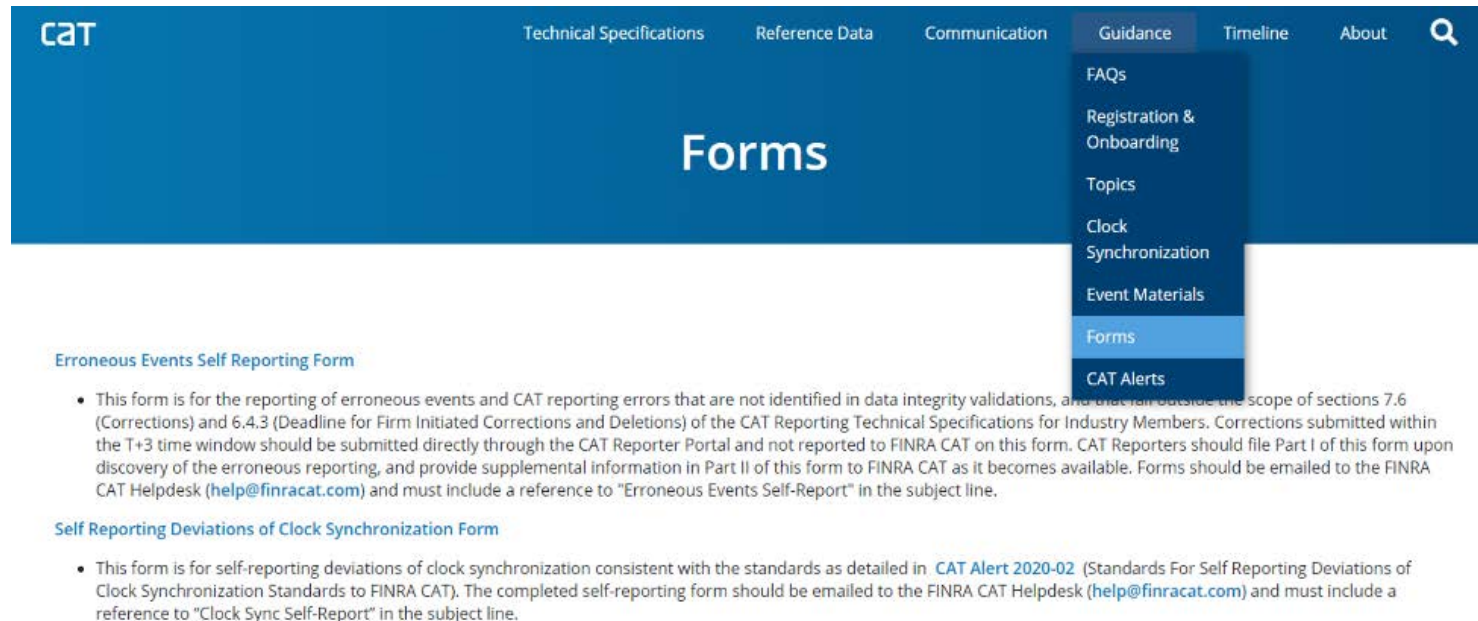
Self Reporting Forms: Clock Synchronization Deviations and Erroneous Data

Agenda

- 1) Locating the Forms on the CAT NMS Plan Website
- 2) Clock Synchronization
 - Clock Synchronization Standards & Self-Reporting Thresholds
 - Self Reporting Deviations of Clock Synchronization Form
 - Clock Synchronization Annual Certification Form
- 3) Erroneous Events Self Reporting Form
 - Purpose of Form
 - Overview of Form (Part I & Part II)
- 4) Q&A

Locating the Forms on the CAT NMS Plan Website

Forms are available on the Forms page, located under the Guidance tab on www.catnmsplan.com.



The screenshot shows the CAT NMS Plan website interface. The top navigation bar includes the 'cat' logo, 'Technical Specifications', 'Reference Data', 'Communication', 'Guidance', 'Timeline', and 'About' tabs, along with a search icon. The 'Guidance' tab is active, and a dropdown menu is open, listing 'FAQs', 'Registration & Onboarding', 'Topics', 'Clock Synchronization', 'Event Materials', 'Forms', and 'CAT Alerts'. The 'Forms' option is highlighted. Below the navigation, the word 'Forms' is displayed in large text. The main content area features two sections: 'Erroneous Events Self Reporting Form' and 'Self Reporting Deviations of Clock Synchronization Form', each with a bulleted description of the form's purpose and submission instructions.

Erroneous Events Self Reporting Form

- This form is for the reporting of erroneous events and CAT reporting errors that are not identified in data integrity validations, and that fall outside the scope of sections 7.6 (Corrections) and 6.4.3 (Deadline for Firm Initiated Corrections and Deletions) of the CAT Reporting Technical Specifications for Industry Members. Corrections submitted within the T+3 time window should be submitted directly through the CAT Reporter Portal and not reported to FINRA CAT on this form. CAT Reporters should file Part I of this form upon discovery of the erroneous reporting, and provide supplemental information in Part II of this form to FINRA CAT as it becomes available. Forms should be emailed to the FINRA CAT Helpdesk (help@finracat.com) and must include a reference to "Erroneous Events Self-Report" in the subject line.

Self Reporting Deviations of Clock Synchronization Form

- This form is for self-reporting deviations of clock synchronization consistent with the standards as detailed in [CAT Alert 2020-02](#) (Standards For Self Reporting Deviations of Clock Synchronization Standards to FINRA CAT). The completed self-reporting form should be emailed to the FINRA CAT Helpdesk (help@finracat.com) and must include a reference to "Clock Sync Self-Report" in the subject line.

Self Reporting Deviations of Clock Synchronization Form

Clock Synchronization Standards for Industry Members

The clock synchronization standards for CAT Reportable Events are found in Section 6.8 of the CAT NMS Plan and in SROs rules.

- Each Industry Member shall synchronize its Business Clocks, other than such Business Clocks used solely for Manual Order Events or Allocation Reports, at a minimum to within a fifty (50) millisecond tolerance of the time maintained by the atomic clock of the NIST, and maintain such synchronization.
- For Manual Order Events or Allocation Reports, the requirement is for Industry Member to synchronize its Business Clocks at a minimum to within one second of the time maintained by the NIST atomic clock and maintain such synchronization.

More information can be found:

- CAT Alert 2020-02 (Standards For Self Reporting Deviations of Clock Synchronization Standards to FINRA CAT);
- The Clock Synchronization page on catnmsplan.com; and
- Section R of FAQs.

Clock Synchronization Standards for Industry Members

The self-reporting obligation applies:

- To systems that are used to create and record CAT Reportable Events.
- Only when such system is creating and recording CAT Reportable Events.
- To each individual occurrence of excessive clock drift on a given device or server while creating and recording CAT reportable events.

Clock Synchronization Standards for Industry Members: Self-Reporting Threshold

Industry Member must self-report a deviation if a system creating and recording CAT Reportable Events drifts out of compliance with the established standards (as detailed in CAT Alert 2020-02):

- **Large Drift from Clock Synchronization:**
 - Standard: **Twice the standard or 100 milliseconds** for all systems other than those used for Manual Order Events and **twice the standard or 2 seconds** for systems that record Manual Order Events.
- **Persistent Drift from Clock Synchronization**
 - Standard: **10 times in one rolling 24-hour period** at any time when the system is recording a timestamp on data that is reportable to the CAT on a given device or server. (The 10 times standard also applies to systems that process Manual Order events.)

Self Reporting Deviations of Clock Synchronization Form

The Form requirements include:

- **Timing of Reporting:** Deviations must be reported by T+3 at 8 a.m., which is consistent with the error correction timeframe.
- **Trade Day Reporting:** If a system has multiple incidents of drift that trigger the self-reporting obligation, it is anticipated that the incidents can be captured on a single report for each trading day.
- **Submitting the Form:** Completed forms must be emailed to the FINRA CAT Helpdesk (help@finracat.com) and include a reference to “Clock Sync Self-Report” in the subject line.

Clock Synchronization Annual Certification Form

Clock Synchronization Annual Certification Form

Industry Members must complete the Clock Synchronization Annual Certification Form **by March 15th of each year.**

- Industry Members are not required to submit such certifications to the exchanges or FINRA.
- Originals of the certification must be maintained by Industry Members as part of their books and records and be available to regulators upon request.
- Industry Members who are members of multiple Participants need only make a single clock synchronization certification.

Clock Synchronization Annual Certification Form

- The certification form is available on the Clock Synchronization page on the CAT NMS Plan Website.

**CONSOLIDATED AUDIT TRAIL (“CAT”)
CLOCK SYNCHRONIZATION CERTIFICATION
BY**

[Industry Member]

**TO
PARTICIPANTS OF THE CAT NMS PLAN**

[DD/MM/YY]

**CLOCK SYNCHRONIZATION CERTIFICATION
BY**

_____ hereby acknowledges that it is a member of the following national
[Industry Member]

securities exchange(s) and/or national securities association(s) (please select all that apply):

<input type="checkbox"/> BOX Exchange LLC	<input type="checkbox"/> Investors Exchange LLC	<input type="checkbox"/> NASDAQ MRX, LLC
<input type="checkbox"/> Cboe BYX Exchange, Inc.	<input type="checkbox"/> Long-Term Stock Exchange, Inc.	<input type="checkbox"/> NASDAQ PHLX LLC
<input type="checkbox"/> Cboe BZX Exchange, Inc.	<input type="checkbox"/> Miami International Securities Exchange LLC	<input type="checkbox"/> The NASDAQ Stock Market LLC
<input type="checkbox"/> Cboe C2 Exchange, Inc.	<input type="checkbox"/> MIAX PEARL, LLC	<input type="checkbox"/> New York Stock Exchange LLC

Erroneous Events Self Reporting Form

Erroneous Events Self Reporting Form

- This Form is to report erroneous events and CAT reporting errors that are not identified in data integrity validations, and that fall outside the scope of sections 7.6 (Corrections) and 6.4.3 (Deadline for Firm Initiated Corrections and Deletions) of the CAT Reporting Technical Specifications for Industry Members.
- Corrections submitted within the T+3 time window should be submitted directly through the CAT Reporter Portal and not reported to FINRA CAT on this form.

Erroneous Events Self Reporting Form

CAT Reporters must provide, among other things:

- Part I: Erroneous Reporting Event Identification
 - Summary of Erroneous Reporting
 - Relevant time periods
 - Event Types & Fields impacted
- Part II: Resolution and Correction of Erroneous Reporting Event
 - Description of how the issue was resolved
 - Mitigation measures

Completed forms must be emailed to the FINRA CAT Helpdesk (help@finracat.com) and include reference to “Erroneous Events Self-Report” in the subject line.

- CAT Reporters should file Part I of this form upon discovery of the erroneous reporting, and provide supplemental information in Part II of this form to FINRA CAT as it becomes available. Supplemental information submissions should reference the FINRA CAT Helpdesk Case Number.

Q & A

How to Ask a Question during Today's Call

- **For participants using computer audio:**
 - Click 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.