

FINANCIAL INFORMATION FORUM

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Via Electronic Delivery

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November 19, 2014

Re: Consolidated Audit Trail National Market System Plan Submission

Dear CAT NMS Plan Participants,

The Financial Information Forum (FIF)¹ Consolidated Audit Trail (CAT) Working Group has reviewed the Consolidated Audit Trail National Market System Plan Submission² (CAT NMS Plan) and is submitting the following comments and questions for consideration in drafting future amendments to the CAT NMS Plan. FIF looks forward to discussing CAT NMS Plan Participant (Participant) responses to FIF questions and comments in future meetings of the CAT Development Advisory Group (DAG). The following document outlines our initial review of the CAT NMS Plan.

1 Exemptive Relief Requests

The CAT NMS Plan references exemptive relief requests that will be submitted for consideration to the SEC by the Participants. While FIF as a representative on DAG has participated in discussions on the exemptive relief requests, the industry has not reviewed the latest version of these exemptive relief requests. It is our understanding that elements of the exemptive relief requests may have changed since initial DAG discussions. FIF looks forward to reviewing draft exemptive relief and believes it is imperative that these requests are granted prior to an amendment of the CAT NMS Plan given their significance in altering the functional requirements and potential cost associated with the implementation of CAT. Additional comments and questions on each of the exemptive relief topics are provided below.

1.1 Manual Order Event Timestamp Relief

Appendix C of the CAT NMS Plan discusses the manual order timestamp exemptive relief stating:

“...the Participants plan to request exemptive relief from the Commission to allow the CAT NMS Plan to require Manual Order Events to be reported to the second but also require CAT Reporters

¹ FIF (www.fif.com) was formed in 1996 to provide a centralized source of information on the implementation issues that impact the financial technology industry across the order lifecycle. Our participants include trading and back office service bureaus, broker-dealers, market data vendors and exchanges. Through topic-oriented working groups, FIF participants focus on critical issues and productive solutions to technology developments, regulatory initiatives, and other industry changes.

² http://catnmsplan.com/web/idcplg?IdcService=SS_GET_PAGE&ssDocName=P600989

to report the timestamp of when a Manual Order Event was captured electronically in the relevant order handling and execution system of the party to the event (hereinafter, "Electronic Capture")."

"... the Participants have determined that adding the Electronic Capture time stamp would be beneficial for successful reconstruction of the order handling process and would add important information about how the Manual Order Events are processed once they are entered into an electronic system.

FIF is concerned with the mechanism around how the electronic capture time will work in practice. We have the following questions:

- Is there a requirement for two different time stamps associated with manual orders? If so, what is the distinction between the time stamps and how will they each be used for surveillance purposes?
- Is this a requirement to report in milliseconds but to capture time in seconds, e.g., are zeroes in the milliseconds portion of the timestamp acceptable?
- If millisecond reporting/capture is required, will backup timestamp mechanisms also be subject to millisecond reporting requirements?

Additionally, FIF would like to raise the following issues:

- Exemptive relief for manual orders should also cover additional manual activities, e.g., stopping an order
- Based on prior conversations with the Plan Participants, it is our understanding that millisecond reporting is not required on allocation records as part of Rule 613. FIF requests that the revised CAT NMS Plan or the manual order exemptive relief specifically address allocations to make it clear that millisecond reporting of allocations will not be required. If timestamps on allocation records are required, FIF requests reporting of timestamps in a millisecond format without requiring the population of the millisecond portion of the timestamp.

1.2 Options Market Maker Quote Relief – Quote Sent Time

The CAT NMS Plan includes an implementation milestone for the changes required to add a timestamp to the Exchanges options quoting interface. This was unexpected because the industry associations recommended that the cost for implementing this additional data element on exchanges' interfaces could not justify the marginal benefit of capturing the timestamp. FIF requests the rationale for adding this data element to exchanges' quoting interface in light of the costs identified in the Cost Survey Report on CAT Reporting of Options Quotes by Market Makers presented to the SRO Consortium in November 2013.

If the benefits of adding quote sent time outweigh the costs, FIF recommends that the specification for Quote Sent time be completed shortly after the Effective Date with the mandatory use of specifications with quote sent time effective at the same time for all industry members. This approach would eliminate the need for exchanges to maintain two sets of specifications or to conditionally validate the quote sent time field based on whether an options market maker is a small broker dealer. Additionally, since quote sent time functionality is only dependent on the Business Clock Synchronization milestone and can be viewed independently of the rest of the CAT roll-out, the early release of specifications would allow additional implementation time for all broker dealers.

1.3 CAT Reporter ID Relief

FIF's understanding of the CAT Reporter-ID Relief Request is that CAT Reporters would be allowed to use existing market center identifications or the LEI instead of the creation of a new CAT Reporter ID that all firms would need to include in CAT submissions. Based on discussions at DAG and documents released by the SROs³, it was our understanding that the Participants agreed with this methodology. However, the implementation schedule outlined in Appendix C includes milestones for obtaining CAT Reporter IDs. If the exemptive relief is granted this element of the CAT NMS Plan should be updated accordingly.

1.4 Relief from Order ID Requirement on Allocation Reports

FIF understands that the Plan Participants are working on exemptive relief from "Rule 613(c)(7)(vi)(A) and (C) to permit the use of a firm designated-identifier as an identifier on allocation reports, rather than the CAT-Order-ID and sub-account numbers."⁴ FIF would like to underscore the importance of this exemptive relief to reducing the cost of CAT implementation. We look forward to reviewing the exemptive relief in order to ensure that the concerns raised by FIF in previous documents have been addressed.⁵

1.5 Relief to Allow Customer Information Approach

FIF has worked with Plan Participants since the inception of DAG to develop the Customer Information Approach that would allow the use of a unique firm-designated identifier for each trading relationship, rather than assigning Customer-IDs that all firms would have to maintain. This approach was included in the CAT Processor RFP and it is our understanding that each shortlisted Bidder supports this approach. Once this exemptive relief is granted, we would expect the revised CAT NMS Plan and the Plan Processor Functional Requirements to reflect this approach.

2 Retirement of Existing Systems

Appendix C.10 of the CAT NMS Plan indicates that analysis for the elimination of existing systems and rules would commence one year after Large Industry members start reporting, i.e., 36 months after the Effective Date. Analysis completes on partially duplicative and non-duplicative reporting rules/systems eighteen months after Large Industry members start reporting,, e.g., 42 months after Effective Date. Additional time would be required to amend existing rules before implementation can begin.

FIF is concerned with these milestones for the retirement of redundant systems since a date for the elimination of existing systems is not included in the CAT NMS Plan. In light of this omission, we question whether the dates set forth in the CAT NMS Plan meet the requirements of Rule 613 as it relates to providing milestones for the elimination of existing systems which states: "...and a timetable for such elimination, including a description of how the plan sponsors propose to phase in the consolidated audit trail and phase out such existing rules and systems..."⁶. It is worth noting that the CAT Cost reporter Survey conducted by the Plan Participants did not include these milestones. As such, we do not believe broker dealers who responded to the survey included costs for extended duplicative reporting.

³ See CAT Request for Proposal, v3 dated March 2014

⁴ See p. 5, [Consolidated Audit Trail National Market System Plan \(CAT NMS Plan\) Submission](#) (PDF 18 MB) submitted September 30, 2014

⁵ See [FIF CAT Working Group Optional Use of Order ID on CAT Allocation Report for DAG](#) and [FIF CAT Working Group Firm-Designed ID Walk-Through](#) submitted on August 5, 2014

⁶ Rule 613(a)(1)(ix), p. 287

FIF recommends that duplicative reporting be no more than twelve months beyond start of CAT reporting. This should be sufficient time to perform required testing and ensure that the data quality in CAT is sufficient for surveillance goals. We believe that both the industry and Participants should be motivated to move to CAT given the cost of operating parallel processes. Additionally, analysis related to the elimination of existing systems should be underway now given that the SROs and industry have already identified the high priority existing rules/systems for elimination, e.g., OATS, EBS and Large Trader.⁷ Any missing data elements or surveillance use cases should be identified immediately and communicated to Bidders so that elimination of existing systems is part of their design at the outset.

3 Error Correction Processing

FIF continues to believe that the timeframe for processing errors is extremely aggressive. With only a three-day error correction window, we anticipate issues especially in cases where a CAT Reporter has systemic issues that would require a resubmission of an entire day's record. In such a circumstance a firm would need time to determine the cause of the problem, implement and test changes and resubmit. In order to address issues like this, a patterns and practices standard for compliance may be appropriate.

Because CAT will be a new system, firms will have to develop expertise with the error and reconciliation process. Without any experience with CAT, FIF believes it is premature to establish a maximum error rate. Currently Appendix C states, "An initial maximum error rate is 5%, subject to quality assurance testing performed prior to launch." FIF recommends that a maximum error rate not be set until after the CAT system has been in production for a twelve month period. Prior to the establishment of a maximum error rate, FIF proposes using report cards that provide peer rankings within tiers based on reporting volumes in a manner similar to OATS. We would recommend "best in class" CAT reporters share effective processes in order to improve the performance of the group as a whole.

Additionally, FIF recommends that the Plan Participants measure the maximum error rate on a monthly basis. This would minimize the impact of isolated issues that may occur as a result of a firm's trade processing or staffing. This may be especially useful to smaller firms that rely on a single person to monitor and reconcile regulatory reports.

In order to provide further comments on error rates, FIF would like to better understand how error rates will be calculated, for example:

- Is a reported error included in the error rate calculations, even if corrected within the T+3 error correction timeframe? Is the error included in error rate calculations for every day that it is not corrected both within and outside the T+3 error correction timeframe?
- If an error is not discovered by the CAT Processor, but self-reported and corrected by a CAT Reporter, is this error included in the error rate calculations?
- Are unrepairable rejects excluded from error rate calculations?
- What is the resolution process for CAT records reported as errors, but which cannot be resolved by the broker dealer? How are these errors included in the calculation of error rates?

⁷ While not yet implemented, FIF requests that the requirements for CBOE Options Tied To Stock (SR-CBOE-2014-040) and CBOE Regulatory Request Data Submission (CBOE Regulatory Circular RG14-139/ C2 Regulatory Circular RG14-040) also be analyzed for elimination as part of CAT implementation. See FIF letter to Timothy Thompson, Chief Regulatory Officer, CBOE, dated October 31, 2014, Re: CBOE Regulatory Circular RG14-139/ C2 Regulatory Circular RG14-040 - Regulatory Request Data Submissions Format

- If trades are unmatched by T+1, are these CAT records counted as errors? What if these trades are never matched? How are unmatched CAT records resolved?

Another concern with error processing, is the issue of unmatched linkages. Footnote 53 states, “In the case of unmatched lifecycle events from two different CAT Reporters, both reports must be initially be marked as unmatched because the Plan Processor will not know which report is erroneous; however, breaks in intermittent lifecycle linkages should not cause the entire lifecycle to break.” FIF agrees with this approach but believes that the assignment of errors for the purposes of report cards and other metrics should only occur after the determination is made as to which report is erroneous.

Additionally, we believe the ability of the Plan Processor to streamline the error correction process will be essential to helping broker dealers meet error correction timelines. Performance criteria should be established with respect to error identification and responses back to CAT reporters. In addition, the report on errors or rejects should contain enough information to allow CAT reporters to correct errors. In FIF’s outreach to the shortlisted Bidders,⁸ it is our understanding that many of them support intelligent matching including suggestions to CAT reporters on how to resolve unmatched records. FIF believes this functionality should be a requirement of the CAT processor in order to assist CAT Reporters in resolving errors in a timely manner.

4 CAT Reporter Support – Testing & Ongoing

A robust customer support model that provides assistance from final specification publication throughout the CAT testing and on-boarding is essential to the industry for smooth and efficient adoption of CAT. An on-going customer service model that supports 24x7 customer help interface points, including phone, email, web-site chats and self-help would lessen the impact, and cost, to the industry in the adoption and on-going use of the CAT utility. Help desk access to technical support personnel both during business hours as well as off-hours and weekends is critical to meeting the aggressive implementation schedules. There are no details provided in the CAT NMS Plan regarding customer support and Help Desk functionality to be made available to the CAT Reporters. FIF recommends including those details in the Plan.

The availability of robust testing early in the development cycle is critical. FIF recommends certification testing with the Plan Processor to ensure CAT Reporter readiness. Other considerations for testing include testing with production data in a test environment to allow thorough testing of linkage dependencies, CAT capacity/stress testing and comparison to existing regulatory reporting systems.

5 Plan Processor Functional Requirements (PPFR)/Technical Specifications

While referenced in the CAT NMS Plan, the PPFR is not included. FIF believes that the PPFR should be part of the CTA NMS Plan. Changes to the PPFR should be subject to a notice and comment process.

Topics for inclusion in the PPFR could include:

- CAT Reporter Access to CAT Data for Error Correction Purposes
- Order Linkages
- Data submission format

⁸ See September 18, 2014 [FIF Comment Letter on Proposed Optimal Solution](#)

- Amendment and Exception Processing
- Customer Account Information Processing

The CAT NMS Plan makes the distinction between material and non-material changes to the Technical Specifications. FIF is concerned that it may not always be apparent to the Plan Participants what constitutes a material change. As such, we would respectfully request that non-material amendments also be submitted to the Advisory Committee for review before implementation.

6 Implementation Milestones

FIF is extremely concerned with the adequacy and current structure of the implementation milestones. FIF appreciates that, in many cases, iterations on specifications were added to the implementation timeline. However without altering implementation dates, there is now even less time available for development and testing. The implementation timeline is not feasible as it stands. The timeline for this project from start (Plan Processor selection) to initial production roll-out of Phase 1 (Participant reporting) is only 10 months, yet a good portion (perhaps more than 50% of the infrastructure, not including storage) needs to be in place within those 10 months. This 10 month time period would have to include the following:

- Contract and SLA negotiations and signing
- Establishing a Plan Processor organization, including any necessary hiring
- Defining the procedures and processes to guide the organization as well as the technical infrastructure
- Publishing of 3 major specifications - Participant Specification, Industry Member specification and CAT User specification
- Establishment of a customer support and help desk infrastructure to handle the Participant and regulator user requests
- Building the majority of the infrastructure needed to run the CAT, including DR and test environments
- Establishment (and testing) of the IT practices (especially security practices) required to ensure a safe and secure environment, including monitoring, surveillance and penetration testing
- Development and testing of the CAT system, including DR testing, and DR testing with Participants and testing of the test environment including connectivity testing with the Participants and CAT users
- Stress testing of the CAT system to ensure the CAT system can meet the stated capacity and performance requirements
- Industry-wide testing of the CAT system with the Participants prior to go-live

The stated implementation timeline is even more aggressive in the second year with the development cycle required for hundreds of Large Industry members. While we understand that the Participants are adhering to timelines established in Rule 613, FIF believes we should act now to establish meaningful and reasonable timelines.

FIF would like to make the following recommendations with respect to implementation milestones that we believe should be incorporated in an amendment to the CAT NMS Plan.

- Customer Account Information Implementation
 - Customer Account Information specifications are not subject to an iterative specification process. An iterative process for the Customer Account Specification should be included.
 - FIF supports the staging of specifications with customer information implementation before order event reporting. Rather than just one month between the implementation of customer account information and other reporting events, FIF recommends a three month implementation period focused on reporting of customer account information. It is important to recognize that the collection of customer information data in the manner described in the CAT NMS Plan is a new feature not currently associated with existing order audit trail systems. The amount of time needs will greatly depend on the bidder solution which will dictate the validity checking and data cleansing required of each Industry member.
- FIF is concerned that staging implementation based on size of broker dealer will complicate implementation especially for service bureaus and clearing firms that will have to support both large and small broker dealers through a transition period. FIF recommends that the cost/benefit analysis of the CAT NMS Plan detail the industry costs to the staged delivery of small vs. large industry members versus the benefits to the small industry members for the additional year of implementation time before regulatory reporting is required.
- FIF recommends that other reference data being captured by the CAT also be staged into the CAT 3 months prior to order event reporting.
- FIF believes that the Participant, Industry Member, and CAT User (Regulator) interfaces and functionality are inter-related and should be developed concurrently not sequentially.⁹ The approval of the Participant specification before the Industry Member specification is available may limit the flexibility of the Processor to incorporate industry feedback with respect to interfaces and functionality required by CAT Reporters.
- FIF would like to better understand the Linkage of Lifecycle of Order Events (p. 192). It is unclear what level of data quality would be required of broker-dealers in this phase of implementation. We are concerned that linkage data provided prior to production will effectively reduce implementation time.

In light of these concerns, the FIF CAT WG plans to submit an alternate implementation timeline for consideration by Plan Participants and the SEC.

7 Additional Concerns

FIF has additional concerns regarding the CAT NMS Plan that have been previously shared with the Plan Participants via comment letters and discussion documents these include:

- Advisory Committee Composition and Effectiveness¹⁰
- Clock Synchronization¹¹
- Inclusion of direct feeds in CAT Processor Data Sets¹²

⁹ It is our understanding that the SROs with routing broker dealers will be reporting their broker dealer activity along with other broker dealers. We believe it would be in the interest of those exchanges to develop the specifications and perform development activities in conjunction with their reporting activities as Participants to the Plan

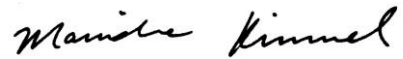
¹⁰ See June 2013 - [FIF Response to Selected Topics of NMS Plan Document](#)

¹¹ See June 2013 - [FIF Response to Selected Topics of NMS Plan Document](#)

We encourage the Plan Participants to revisit these topics and review the FIF material previously submitted.

We understand that the CAT NMS Plan will be subject to further refinement in future amendments and hope these comments will be useful in the formulation of the next version of the CAT NMS Plan.

Sincerely,

A handwritten signature in black ink that reads "Manisha Kimmel". The signature is written in a cursive, flowing style.

Manisha Kimmel
Managing Director
Financial Information Forum

¹² See September 18, 2014 [FIF Comment Letter on Proposed Optimal Solution](#)