FINANCIAL INFORMATION FORUM

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August 12, 2010

Elizabeth M. Murphy, Secretary
Securities and Exchange Commission
100 F Street, NE,
Washington, DC 20549-1090

Re: File Number S7-11-10, Consolidated Audit Trail

Dear Ms. Murphy,

The Financial Information Forum (FIF)[1] would like to take this opportunity to comment on the proposed Consolidated Audit Trail (CAT) discussed in File Number S7-11-10 (the "Proposal"). FIF members agree that an enhanced audit trail system could increase the effectiveness of cross-market surveillance through better data availability and integration. To ensure that the Commission's major objectives can be met within a reasonable timeframe and in the most efficient manner possible, FIF recommends that the SEC perform a complete RFP (Request for Proposal) process to determine the best technical solution for developing a consolidated audit trail.

As part of this process, the SEC should perform a gap analysis reviewing the content/format of information captured by regulatory systems in production today (e.g., OATS, Electronic Blue Sheets, TRACE) to determine the extent to which current systems could be enhanced to meet the objectives of CAT. Preliminary, we believe that there are opportunities to leverage current processes and infrastructure in the development of CAT but believe that the choice of processor should be a separate component of the RFP process. To this end, our comments would be better informed with the release of a gap analysis detailing the functionality and scalability of existing regulatory as well as commercial solutions from which we could comment on the most feasible technical solution for achieving the functionality required.

The following sections of this document detail our concerns with respect to the proposed CAT from an implementation perspective. We respectfully request the Commission to consider these points in evaluating proposed solutions for implementing CAT.

[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.

Data Submission Requirements: Content Required in CAT

As part of the RFP process, FIF members believe it is important for the Commission to examine what data is required in CAT via automatic submission given that there is extensive data available to regulators that can be retrieved from firms directly. Collecting every piece of information related to orders and executions in a central repository will increase cost, complexity and security requirements not just for SROs and their members but also for the CAT system. Processing the sheer volume of data being proposed for submission presents serious technical challenges in terms of database design, capacity and integration. The cost and feasibility of this significant effort should be evaluated as part of the RFP process.

FIF members' biggest concern is with respect to the submission of customer data in the form of customer IDs which is discussed in more detail below. Additionally, it should be noted that some customer information (e.g., allocations) is not available with an order. Since allocations are tied to the execution, for global firms, it is possible that this information is not available until T+1. Different processes for data submission/collection should be considered when evaluating the importance of submitting allocation data into CAT.

Data Submission Requirements: Customer Identifiers

FIF understands that regulators need to be able to determine if trading is being coordinated by a person, or persons, using accounts at more than one broker-dealer, and for this reason has proposed that every trade be reported to a central repository identifying the beneficial owner of the account. However, FIF believes that sophisticated analysis could identify trading activity that *might* be coordinated, without using an account identifier, and that regulators could then perform further analysis to determine who traded by using Electronic Blue Sheets (EBS) and other methods already available to the staff. Providing customer information especially cross border customer information will be difficult due to privacy concerns. Concerns over information leakage could negatively impact investor willingness to trade in the U.S. markets. The proposal needs to clarify who will have access to customer data and how confidentiality will be ensured. A substantial infrastructure is needed to accommodate unique customer identifiers.

The alternative suggested in the proposal of having the central repository assign a unique customer identifier in response to an input by a member of a customer's SSN or TIN would require significant system programming within the firm to automate input and retrieval of tax IDs. This approach also introduces the risk of identity theft.

If the Commission believes that customer data stored in CAT is absolutely necessary to perform effective cross market surveillance, a possible solution could be the creation of a central repository of account numbers. OATS and Electronic Blue Sheets (EBS) could be enhanced to link customer information in EBS to trading information in OATS. For example:

- EBS records could be "pushed" to SIAC at the end of the day (EOD) and include account information (name, addresses, SSNs, POAs, etc.). Examples of daily pushes of data are the LOPR and InConcert Records pushed to OCC. With the account details in hand, the Central Repository could make their own determination of a "Unique Customer ID" and eliminate the need for broker-dealers to make that determination.
- In OATS, a new field could be added for account number. With the account number, the Central Repository could link an order back to the account number in EBS.

EBS would give the Central Repository the account information. OATS would give the Central Repository the trading information with an account number to link back to the account information. If the Central Repository could use the OATS and EBS data to make their own determinations of who/what constitutes a Large Trader or InConcert Group based on the trading activity of a particular customer/entity, there would be no need for each broker-dealer to make those determinations. FIF does not support the proposed inclusion of customer information; however, if required proposals such as these should be considered as part of the RFP process.

FIF recommends that the requirement for such an identifier be tabled until after regulators have experience using CAT without this identifier, because regulators could readily gather this information using the EBS and other methods within a few days of commencing any review, and because the identifier raises important questions surrounding privacy, increases the risk for leakage of critical information that could be misused, would significantly increase the cost of complying with the rule, and would significantly increase the time needed to implement it.

Data Submission Requirements: Unique Order & BD Identifiers

FIF members do not recommend creating a unique order identifier that would be passed between firms. By requiring a unique order ID throughout the order lifecycle, order information will be shared not just with CAT but with any firm interacting with an order making it possible to infer the origin of an order. Rather than passing Order IDs, we suggest linking order information in a manner similar to OATS such that regulators can determine the order lifecycle without disclosing information to each firm participating in a transaction.

Data Submission Requirements: Real-Time Data Submission

FIF members request clarification on the definition of real-time data submission as it relates to each data element required by CAT. The granularity/definition of real-time for each element will have a major impact on SROs, their members and CAT system development from both a data quality and database design perspective as discussed below:

- In order to keep real-time data submission accurate, CAT would need to be incredibly robust with fail safe mechanisms for scalability and zero drops.

- There is less time for error checking and reconciliation. In addition to allowing for re-transmission when connections go down, the CAT facility would also need a mechanism to identify and correct data that was inaccurate. This is a database design issue that is much more significant if the submissions are in real-time.

- Firms' internal processes require time to process the various segments of an order through its lifecycle. Today, firms receive real-time data from numerous order management systems. The data does not come in a coordinated sequence; one system may be delayed in submitting. For example, route information could be obtained before new order information and execution information before route information. Firms have linkage processes, consolidate the information, perform enrichment and normalization of this data by making sure there are unique order identifiers etc. To perform these processes in real-time and provide usable data to CAT would be a significant challenge and reduce the opportunity for data consolidation/correction.
- Bandwidth/Storage Requirements would be significant especially if all participants were submitting their quote and order data. Even if only the SROs were providing data to CAT, aggregating SIP and proprietary feeds will require tremendous bandwidth, storage, and processing power. Linking aggregate quote data to individual orders in real-time introduces an additional level of complexity.
- Implementation Timing/Cost: Requiring real-time data is one of the most costly aspects of the CAT proposal. As part of the RFP Process, the Commission should perform a cost/benefit analysis of moving from current submission timeframes (e.g., 5 AM the day after the trade for OATS) to more frequent submissions. Addressing the concerns noted above will lengthen the implementation time substantially during which time existing systems (e.g., OATS, EBS) will need to be enhanced to support evolving market needs.

It is our understanding that each SRO conducts real-time surveillance today. In order to achieve the Commission's cross-market surveillance objectives, we suggest the integration of these data streams. After an evaluation of access to this real-time data in conjunction with data available under current submission timeframes, decisions about the extension of real-time submission requirements to other data elements can be made. It should be noted that one of the most costly aspects of this proposal would be to require real-time submission of order/trade data. The cost/benefit should be considered as part of the RFP process.

Review Existing Regulatory Reporting Systems/Processes

As stated earlier, FIF members suggest reviewing existing regulatory reporting systems to base CAT on existing platforms. This would include integrating the upcoming Large Trader Reporting System[2] into an enhanced Electronic Blue Sheets. As part of this process, we recommend a review of current OATS specifications to identify what data is useful, identifying ways to streamline and standardize reporting. While recognizing that OATS has not been designed for real-time submissions, a large infrastructure has been built around OATS with some firms submitting 10-20 million records daily.[3] New order reports contain detailed information on an order with over 45 mandatory and conditional fields. Today, all FINRA member firms are submitting, monitoring and repairing OATS data in response to regular SEC and FINRA inquiries in a fairly accurate and timely manner. The recently proposed FINRA-2010-44 would extend the scope of OATS to all NMS stocks (i.e., NYSE, NYSE Amex, Arca). Assuming this process eliminates the use of OTS and harmonizes NYSE Rule 123 with OATS rules, FIF members believe this is a good first step towards achieving a consolidated audit trail.

Furthering the goals of CAT, OATS and Blue Sheet information, with enhancements, could be linked together to identify the end customer associated with an execution. FIF members involved in OATS reporting have identified the following OATS features which should be considered in the CAT implementation:

- OATS offers a feedback loop. There are mechanisms to reject, repair and resubmit data. OATS can identify and reject duplicative reporting such as identifying smart order routers making trading decisions and modifying orders. OATS is focused on customer events and avoids duplicative reporting and meaningless information, e.g. only modifications issued by clients are reportable to OATS, whereas orders from a smart

[2] See FIF Letter to the SEC on Large Trader Reporting System
[3] In FINRA's comment letter on S7-11-10, they stated that current OATS volume exceeds an average of 300 million order events per day.

order router are reported only by the OATS reporting venue that is the destination, thus maintaining the audit trail without duplicative reporting.

- OATS methodology links reports between member firms and NASDAQ exchanges, without the need for a unique customer identifier.
- Proprietary orders are reported in OATS today. In addition, OATS contains support for additional order types such as proprietary, principal and customer order types. Although we have not evaluated whether the OATS architecture can scale, it is flexible enough to accommodate additional order types.
- FINRA uses OATS records to identify related quotes today. Rather than having Broker Dealers also supply quotes, CAT should leverage off the OATS linking process.
- OATS already identifies orders related to index arbitrage and program trading, and could add a Large Trader ID field to enhance analysis of high volume, algorithm trading.

Similarly, as the scope of CAT expands into debt securities, we would expect an analysis of TRACE to determine the extent to which the TRACE infrastructure could be leveraged to reduce implementation time and cost. There are on-going enhancements in TRACE (and proposed enhancements to OATS) that the SEC should monitor and consider.

To whatever extent possible, FIF members support standardization utilizing the Financial Information eXchange (FIX) Protocol for reporting purposes. The FIX Protocol provides a standard point of reference with industry participants and is typically used across the order lifecycle and within a firm's order management processes. Leveraging FIX could result in quicker implementation times and simplify data aggregation at the SRO and CAT level.

Gaps exist today between current reporting systems and the requirements presented in the CAT proposal; however, the RFP process should consider if enhancing current reporting systems to accommodate these gaps is more feasible and less costly than developing an entirely new system.

Clock Synchronization: Complexity Increases with Granularity

FIF members request that the level of synchronization be defined in seconds and not milliseconds to take into account time drift and current hardware capabilities. With today's technology, synching at the millisecond level requires specialized software configurations and expensive hardware. It is worth noting that it took over a year for exchanges to synch on quotes. Although synch technology has matured since then, exchanges today experience issues with clock synch. For example, at least one exchange has measured time drifts of 1 – 3 seconds on clock synching of quote data. Not only is there time drift at each exchange, the SIP has its own time drift.

Individual systems can generate time stamps at the millisecond level that will allow sequencing of orders coming from that system but that will not ensure that the system is “synched to the millisecond” with other systems within a firm or across firms. If processors are required to independently re-synch every few seconds, there would be a material impact on the latency and performance of order management and trading systems that will be required to send data to CAT.

Because of the unknown clock drifts, it is difficult to sequence orders based on millisecond timestamps so there is no real value in requiring data to this level of specificity, especially if the goal of time stamping is to sequence the lifecycle of a single order as it moves from origination to execution. Unknown time drifts could also cause sequencing problems in that CAT could receive a route report from a routing Broker Dealer that is time stamped with a time that is before the new order report is sent by an introducing Broker Dealer. This could lead to rejects, especially if data is submitted to CAT and reconciled by CAT on a real-time basis.

FIF members feel that 1 second synching is reasonable. Sequencing based on millisecond time stamps is not possible without substantial investments in technology and would likely prove to be inaccurate given time drift issues.

Phased Implementation

As stated earlier, FINRA’s proposed rule SR-FINRA-2010-044 proposes to expand the scope of OATS to include all NMS stocks. The impact of this expansion should be evaluated as part of the RFP process. FIF members concur with FINRA in that expanding OATS will enhance its ability to detect illicit trading activity which is one of CAT’s most important goals. [4] Given the complexity, risk and cost of developing and operating a consolidated audit trail, we believe that the first phase of CAT should focus on well-defined, achievable functionality. FIF members believe that the following functionality and scope can be achieved quickly and with the highest impact:

- Begin with NMS Stocks, followed shortly thereafter with implementation for all NMS Securities (i.e., Listed Options)
- Begin with data elements currently captured by OATS and EBS integrated at the SRO-level for cross-market surveillance

[4] Specifically, FINRA states in their rule filing: “extending the OATS recording and reporting requirements to NMS stocks listed on markets other than Nasdaq will greatly enhance its audit trail and its ability to identify illicit trading activity in a more effective and efficient manner.

In order to avoid operating duplicative systems and parallel processing, it is imperative that the launch of CAT functionality is linked to the elimination of existing systems/processes. Implementation plans should specify not just the phase-in of CAT but also the phase-out of existing systems. In our experience, parallel processing has proven to be expensive and difficult to maintain since the same development and operational resources are implementing the new functionality while still supporting legacy systems. To avoid wasted effort, we would expect that no critical updates to legacy systems would be required during this phase-in/phase-out process.

Determination of Implementation Time

Technical specifications are needed to assess SEC estimates of implementation time and costs outlined in the proposal. Similar to Regulation NMS, Broker Dealer compliance dates should be tied to the publication of final specifications from all of the SROs. It remains to be seen whether two years will be sufficient implementation time because the actual specifications are not released yet. There needs to be some flexibility in order to analyze the implementation schedule once technical details are known. If the scope and granularity of data that is initially required extends significantly beyond existing regulatory submissions, then the implementation/effective date for SROs and Broker Dealers should be determined only after the SRO filings are complete.

Specificity of requirements is important because the level of granularity required has the potential to change costs exponentially. For example, requiring clock synchronization at the millisecond level as opposed to the seconds level has significant ramifications in terms of cost and resources required. Also, requiring submission of order data within seconds of order creation/modification as opposed to via batch processes also changes the complexity and cost of implementation.

In addition to sufficient time for broker-dealers, it is important to give SROs sufficient time to derive functional and technical specifications from the approved rule in order to form an NMS plan. Based on past experience, the Commission should consider extending the time required for the development of the CAT NMS Plan and selection of a Plan Processor.

- It took 11 months for the SROs to create the NMS Linkage plan (Filed, Jul 28, 2006) from the effective date of Reg NMS (Aug 29, 2005)
- The OPRA processor RFP took 6 months where the processor requirements were well-defined and there were only a small number of RFP respondents. The selection of a CAT plan processor is significantly more complicated

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Summary

In summary, we thank you for being given the chance to comment on this important industry initiative. FIF believes there is now an opportunity to implement audit systems that are more targeted to addressing industry surveillance needs that are better coordinated and result in a more efficient and relevant process.

We suggest that the compliance requirements be defined in the context of potential technology solutions. An RFP is an appropriate step to clarify the needs and evaluate potential alternatives. As we stated earlier, the benefits of leveraging existing platforms and processes should be explored as part of the RFP process. Evolving from where we are rather than attempting to create a totally new system could be the best alternative. In addition, any plan should consider the tools we have today because we will want to sunset systems/processes as we transition staff and other resources to a more efficient future environment.

Thank you for this opportunity and we anticipate working with you as we have on past initiatives to get the best possible outcome that is important to the Broker Dealers, Exchanges/ ECN's, Vendors, End Users and the Regulators.

Sincerely,

Manisha Kimmel
Executive Director
Financial Information Forum