



**Written Testimony of**  
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**on behalf of the**  
**Securities Industry and Financial Markets Association**  
**before the U.S. House of Representatives**  
**Committee on Financial Services**  
**Subcommittee on Capital Markets, Securities, and Investment**  
**Hearing entitled “Implementation and Cybersecurity Protocols of**  
**the Consolidated Audit Trail”**  
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Chairman Huizenga, Ranking Member Maloney, and distinguished members of the Subcommittee, thank you for providing me the opportunity to testify today on behalf of the Securities Industry and Financial Markets Association (“SIFMA”)<sup>1</sup> and to share our views on the implementation of the Consolidated Audit Trail (“CAT”). SIFMA represents a broad range of financial services firms active in the capital markets and is dedicated to promoting investor opportunity, access to capital, and an efficient market system that stimulates economic growth and job creation. This Subcommittee’s review of the challenges investors, broker-dealers, exchanges, and regulators face with the CAT is incredibly important and timely. While there may indeed be a great value in a workable, secure CAT, the implementation issues we and others have identified over the past few months, and indeed the past few years, remain largely unaddressed or incomplete to the potential detriment of tens of millions of investors.

## **A History of the Consolidated Audit Trail**

In 2012, the Securities and Exchange Commission (“SEC”) adopted Rule 613 of Regulation National Market System (“NMS”) under the Securities Exchange Act of 1934 (“Exchange Act”). Rule 613 directed the national securities exchanges and FINRA (together, the “SROs”) to develop an NMS Plan to create the CAT. When the CAT is fully operational, it will capture all customer and order event information for orders in equity securities and listed options from the time of order inception through execution. With this information, the CAT will be the world’s largest data repository for securities transactions, and one of the world largest databases of any type. Every day the system will take in 58 billion records – orders, executions and quotes for the equities and options markets – and will maintain data on over 100 million institutional and retail accounts and their unique customer identifying information. As currently envisioned by the SROs, all of this data would be accessible by thousands of users. The CAT data would grow to an estimated 21 petabytes within 5 years – the equivalent of over ten times the content of all U.S. academic research libraries, all in a single database. As it is currently planned, the CAT will contain a significant amount of sensitive information – both personally identifiable information (“PII”) of individual customers (such as social security numbers, addresses, and dates of birth) and identifiable proprietary transaction data that could potentially be reverse engineered and used for market manipulation.

SIFMA has supported the development of the CAT and believes that, if successfully designed and implemented, the CAT could be a critical aspect of market infrastructure and regulation. However, the current state of CAT implementation has left some major issues unaddressed. Today, we will focus on three key aspects of CAT implementation that need to be addressed:

- Sensitive Information and Data Security
- Operational and Implementation Hurdles
- The SROs’ CAT Funding Model

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<sup>1</sup> SIFMA is the voice of the U.S. securities industry. We represent the broker-dealers, banks and asset managers whose nearly 1 million employees provide access to the capital markets, raising over \$2.5 trillion for businesses and municipalities in the U.S., serving clients with over \$18.5 trillion in assets and managing more than \$67 trillion in assets for individual and institutional clients including mutual funds and retirement plans. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

Ultimately, these issues result from a flawed process for developing the CAT. We will provide some examples of the problems with the process and ideas for solutions.

### **Sensitive Information and Data Security**

Despite the unprecedented amount of data being stored in the central repository, and the associated data protection concerns, the CAT technical specifications that have been released to date include alarmingly few details on data security and protection. As the SROs' initial reporting deadline approached and passed, Thesys – the CAT system processor – had not hired a Chief Information Security Officer (“CISO”) to review the data security policies and procedures to ensure protection of the CAT data, as required by the CAT NMS Plan.

At the outset, the SEC and the SROs should examine the cost and benefit of collecting customer PII and identifiable proprietary trading data in the CAT. Collecting that information in the CAT creates tremendous risk in the event of a breach. As such, the SEC and the SROs should have to make the case that the CAT's collection, storage, and use of PII and identifiable proprietary trading information is required for effective surveillance. It should be possible to build the CAT in a manner that would allow the SEC and the SROs to make follow-up requests for identifying information on an as-needed basis.

If sensitive identifying information is going to be included in the CAT, then the SEC and the SROs must provide much better assurances on data security than they have so far. Financial firms and regulatory agencies share a common goal in securing and protecting the data entrusted to them by clients and financial institutions. However, the current CAT development plan raises serious concerns around data protection and the ability to confidently secure the critical information it will contain. In particular, the draft CAT technical specifications that have been released to date include alarmingly few details on data security and protection. Put simply, we agree with Commissioner Michael S. Piwowar that, “the need for robust protection of customer data trumps all the other issues that have been raised.”<sup>2</sup> Keeping CAT Data secure and confidential is of primary importance not only to the efficacy of the system itself, but also to the confidence of market participants.<sup>3</sup> It is therefore critical that the CAT be held to the highest security standards. As the SEC and SROs prepare to move forward with the implementation of the CAT, it is critical that the CAT does not introduce new data protection risks. The SROs and Thesys should leverage the industry expertise to ensure the CAT's data security meets the highest industry standards.

Beyond the fundamental questions of whether this sensitive information is necessary for the CAT to be successful and whether that information will be secure is the question of usage of that information. CAT would allow all of the 22 SROs and the SEC to download any or all bulk data from CAT into their own systems. In fact, the NMS Plan stipulates that Thesys design CAT to accommodate up to 3,000 individual users. As a result, the protection of the data depends not only on the security of the CAT system but also on the security of each of the SROs plus the SEC, all of which will have downloadable access to all CAT data. The first step to strengthen data security should be an amendment to the CAT NMS Plan that prohibits downloading data from the CAT. Rather, SIFMA suggests a sandbox approach – under which the SEC and the SROs access data

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<sup>2</sup> Statement on the Joint Industry Plan on the Consolidated Audit Trail (“CAT”), Public Statement by SEC Commissioner Michael S. Piwowar (Nov. 15, 2016).

<sup>3</sup> See SIFMA Statement on CAT Plan Proposed by SEC (Apr. 27, 2016); *available at* <http://www.sifma.org/newsroom/2016/sifma-statement-on-cat-plan-proposed-by-sec/>.

from within the CAT data security perimeter so that no data ever leaves that perimeter. This solution would provide the SEC and the SROs with access to perform surveillance in a secure and confidential manner, without subjecting that data to the risk of each SRO's security systems.

## **Implementation and Operational Hurdles**

From the time of its adoption, Rule 613 has set an overly aggressive implementation timeline for the CAT. Under Rule 613, the SROs were required to begin reporting to CAT on November 15<sup>th</sup> of this year, only 12 months after the SEC approved the CAT NMS Plan. Large broker-dealers are scheduled to begin reporting 12 months after the SROs, while the remaining small broker-dealers are set to begin CAT reporting 12 months after that. That schedule was never practical, and it was incorporated into Rule 613 without any consideration of the actual time it would take to build such a complicated system – both in terms of completing the technical specifications and conducting robust testing.

Adding to the burden, the CAT NMS Plan set out a flawed timeline for developing the technical specifications necessary for broker-dealer implementation. The Plan provides that final specifications for broker-dealer trading information were to be complete on November 15<sup>th</sup> of this year. Even on schedule, that would have left only 12 months between final specifications and implementation, and as we noted previously the SROs have missed the deadline to provide final specifications. Moreover, the final specifications for customer information are still scheduled for May 15, 2018 – only six months before the reporting deadline. The lack of feasibility of these timeframes is evidenced by the fact that the SROs submitted a last-minute request to the SEC to postpone both SRO and broker-dealer reporting. The SROs missed their own reporting deadline and the deadline to provide final specifications when the SEC failed to grant the request.

Clearly, the implementation schedule must be revisited. There must be appropriate time allocated to reassess and tailor the implementation schedules and milestones in the NMS Plan to make the rollout of the CAT as efficient as possible. Implementation of CAT should include sufficient lead time to enable all reporting firms, including smaller broker-dealers, to establish the internal structure, technical expertise, systems, and contractual arrangements necessary to implement two distinct sets of technical specifications and begin reporting. A reasonable timeframe can only be determined once Thesys has published all the final technical specifications for the reporting of both trading and customer information. The implementation schedule must be designed to provide iterative testing and communications between broker-dealers and the CAT Processor in terms of developing and executing final system specifications and to promptly resolve any open issues.

It is evident that the SROs require assistance with the technical specifications for broker-dealers. The finalization of detailed technical specifications is critical, and they should be released in draft versions to allow for robust iterative feedback from broker-dealers. Once the specifications are finalized, broker-dealers should be given a minimum of twelve months to complete the requirements gathering and analysis, internal design and development, and testing based upon these final specifications. Mandatory testing should follow, and include coordinated industry tests involving industry members, the SROs, and Thesys to allow for the validation of CAT reports, exception reporting and processing, and inter-firm linkages between firms and the exchanges. This should be followed by a trial, phased implementation approach with equities in the first tranche, allowing the industry time to perform error corrections and linkage validations.

This methodology will provide firms with an opportunity to reduce error rates during the trial period prior to onboarding to the CAT. In addition, it is imperative that the SROs and the SEC work with Thesys during each of the specification development processes to ensure that all necessary data fields are included in the CAT technical specs to facilitate a timely retirement of redundant reporting systems.

### **SROs' CAT Funding Model**

The SROs have proposed a funding model for CAT that would impose a vast majority of the building and operational costs on broker-dealers, without providing any real justification or information about their current receipt and use of regulatory fees from broker-dealers. This approach to the funding model is particularly troublesome given that the SROs include the for-profit exchanges, which have built the funding model to benefit their own commercial interests at the expense of the broker-dealers they regulate and compete with.

***What is the cost.*** The SEC estimates that it will cost \$92 million to build the CAT central repository and \$135 million annually to operate it, and the SROs have proposed to charge a fee to broker-dealers to defray those costs. In addition to an SRO fee, the SEC estimates \$2.1 billion in overall industry-wide implementation costs for the CAT reporting and \$1.5 billion in ongoing annual operational costs. The SEC estimates that total annual cost of the Plan would be \$1.7 billion, of which \$1.5 billion, or 88%, is allocated to broker-dealers to meet their data reporting requirements. This raises the following initial threshold question: should broker-dealers, which are already burdened with 88% of the costs of the CAT, be responsible for funding any portion of the costs to build and operate the CAT itself?

***Problems with the cost distribution.*** SIFMA has repeatedly raised CAT funding as a critical issue, and the funding proposal in the CAT NMS Plan should have been the product of collaboration between the SROs and the broker-dealers. However, despite the obvious conflict of interest, the SROs created a funding model with no input from broker-dealers. SIFMA and other industry participants repeatedly requested the opportunity to work with the SROs on a reasonable funding model, but the SROs refused those requests and instead attempted to impose a fee structure that was most beneficial to their interests. Moreover, the SROs filed the CAT fee proposals with the SEC for immediate effectiveness without soliciting public comments. If the SROs had engaged in a good faith effort to solicit input on the proposals, then it is possible an appropriate solution could have been achieved. Instead, however, the SROs decided to impose the vast majority of costs and expenses of building and operating the CAT on broker-dealers without considering industry concerns.

The proposals provide insufficient financial details on why broker-dealers, which would be tasked with paying nearly all of the costs and expenses of the CAT, should be subject to any CAT fees, especially in light of the SROs' existing regulatory revenue. In that regard, there should be no new fee for the CAT until market participants are provided with a complete picture as to how regulatory fees are currently allocated, how the CAT fee fits into the existing regulatory framework, and why assessing broker-dealers an additive regulatory fee is necessary to fund the creation and operation of the CAT.

Moreover, the SROs' proposals did not satisfy the requirements of the Exchange Act because they were not an equitable allocation of reasonable fees under Section 6(b)(4) or Section

15A(b)(5). The SROs stated outright in the proposal that they have structured the fee schedule with a goal of imposing 75% of the total CAT costs to broker-dealers. On its face, this is not an equitable allocation of fees for a system that is being created by and for the benefit of the Plan Participants. The only justification provided by the Plan Participants is that the 75%/25% division was chosen to maintain “comparability” across the funding model, keeping in view that comparability should consider affiliations among or between CAT reporters.<sup>4</sup>

SIFMA takes particular exception to the SROs’ proposal to use the funding authority to recover their legal and consulting costs in developing the Plan. Specifically, the proposed CAT fees would include reimbursement to the Participants of third-party support fees (historical legal fees, consulting fees, and audit fees), operational reserve, and insurance costs. Those costs are the responsibility of the SROs, which will own and operate the system. There is absolutely no justification for the SROs’ proposal that broker-dealers should be responsible for any of the legal and consulting costs that the SROs incurred in developing the Plan. Any CAT fee that the SROs do charge should be determined by an independent third party so that it is transparent and can be determined by an objective standard to be equitable and reasonable.

The SEC shared SIFMA’s concerns and suspended the fees while considering whether to approve or disapprove the proposals. In the meantime, the SROs have responded to some of the industry’s concerns about the applicability of the fees and amended the proposals. However, the SROs’ funding model for CAT continues to be based on imposing 75% of the total costs to broker-dealers.

### **Issues with the CAT Development Process**

In adopting Rule 613, the SEC envisioned close collaboration between the SROs and broker-dealers, with the SROs benefiting from “draw[ing] on the knowledge and experience of [their] members.”<sup>5</sup> And in the NMS Plan governing the CAT, the SROs discuss at length their claims of incorporating broker-dealer feedback. These visions are not reality, however, as the SROs largely developed the CAT among themselves and were not open to broker-dealer input on key policy issues. That lack of meaningful collaboration with the industry has led to some untenable proposals that should be of concern to policymakers and the investing public alike. For example:

- The SROs have proposed and utilized a governance structure for CAT that follows the same flawed model that has been used in other NMS Plans, with no meaningful representation by broker-dealers or asset managers. If the SROs had worked with industry members on this issue, we could have developed a workable governance model that avoided the mistakes of the past and potentially would have gotten the CAT up and running more quickly.
- The SROs have proposed a schedule for elimination of systems under which duplicative systems such as the FINRA’s Order Audit Trail System (“OATS”) could run in parallel with the CAT for years to come with no real sunset date. If the SROs had worked with the broker-dealers on this issue, we could have developed a more practical schedule to eliminate systems within months of CAT becoming operational, reducing cost to all participants by streamlining largely duplicative systems.

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<sup>4</sup> See Securities Exchange Act Release No. 80710 (May 17, 2017), 82 FR 23639, 23648 (May 23, 2017).

<sup>5</sup> Consolidated Audit Trail, Securities Exchange Act Release No. 67457, at 245 (Jul. 18, 2012).

- The SROs have proposed a funding model for CAT that would impose a vast majority of the building and operational costs to broker-dealers, without providing any real justification or providing any information about their current receipt and use of regulatory fees from broker-dealers. The SEC has agreed with SIFMA and has instructed the SROs to develop a more appropriate funding model. If the SROs had worked with the broker-dealers on this issue or prioritized greater transparency on cost and funding issues, we could have developed a reasonable funding model supported by evidence and analysis well in advance of the CAT going live.

And now, the same exchanges that ran the development process to the exclusion of industry participants are complaining about the state of the development process. Given the ambitious scope of a system like the CAT, industry participants should be active participants in the CAT's ongoing development, rather than having only a limited opportunity to view and comment on proposals that the SROs separately develop with Thesys, the CAT processor. SIFMA's member firms have unique expertise and insight that strongly complement that of the SROs while filling in the SROs' expertise gaps on topics such as the details of broker-dealer trading flows. In the absence of any real collaboration on this project, we find ourselves now with the SROs not fulfilling a key reporting deadline of its own – November 15<sup>th</sup> of this year – and failing to provide the broker-dealer community with the final reporting specifications they were supposed to receive on that same day. Going forward, establishing a true collaboration among industry participants, the SROs, and Thesys will provide the opportunity for the CAT to be informed by the insights and interests of all the affected market participants at a time when they can be readily incorporated without delaying or impeding a successful CAT construction and implementation. There is still time to get this right.

## **Conclusion**

The development and implementation of the CAT have been a disaster. The broker-dealers responsible for reporting to CAT are collectively faced with heightened data security risk, a problematic implementation schedule that is severely behind schedule, and an inequitable funding method that shifts an unjust proportion of costs to broker-dealers. All Americans should be concerned with the unprecedented amount of data that will be reported to CAT, particularly the PII and other sensitive information, and need to ensure the system can adequately protect the data prior to the implementation of CAT. The SEC should reevaluate the need to include customer PII and identifiable proprietary transaction information in the CAT considering the tremendous risks and costs the inclusion introduces. To make the CAT as efficient as possible, the SROs should focus on developing prescribed technical specifications rather than following arbitrary timeframes in the rule. With the SROs' financial interest in defraying most of the costs to broker-dealers, we need to review the funding of the CAT to ensure the exchanges meet their regulatory responsibility as SROs. We appreciate the interest of this Committee in reviewing the CAT and look forward to working with you on this important task.