

# COOL CAT: CONSOLIDATED AUDIT TRAIL AND ITS DATA POTENTIAL

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DATA CREATED FOR SEC 613 CAT CAN BRING REDUCED COSTS, ENHANCED EFFICIENCY AND GREATER SCALABILITY. BROKER-DEALERS MUST IDENTIFY WAYS TO PROFIT AND CREATE BUSINESS OPPORTUNITIES BASED ON THIS ADVANCED DATA.



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# CURRENT STATE

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**The Consolidated Audit Trail (CAT) tracks orders throughout their lifecycle and identifies broker-dealers and exchanges handling them, thus allowing regulators to more efficiently and accurately track activity in eligible securities throughout the U.S. markets.**

Initially, the regulation called for SROs (self-regulatory organizations, such as FINRA and national security exchanges) to begin reporting CAT data from November 15, 2017, and for Large Industry Members - from November 15, 2018. In November 2017, SROs and SIFMA formally requested that the SEC delayed the implementation of CAT. SEC Chairman Jay Clayton denied the request to delay implementation, but stated: "I recognize recently that the SROs have worked together to develop an action plan for bringing the CAT on-line, albeit on a delayed basis."

Today, the CAT reporting expectations for both participants and industry members are still uncertain. Broker-dealers have the opportunity to more efficiently design and implement their CAT reporting processes, with a specific focus on data collection and the opportunities it entails.



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# WHAT IS GOING TO CHANGE FOR MY FIRM?

Aside from CAT representing a paradigm shift in the U.S. markets regulation, the initiative will also demand changes to some of the industry's reporting processes (OATS, EBS) and procedures (Error Handling, Report Submissions, Feedback and Corrections).

The CAT initiative will necessitate changes to equity and options trade reporting systems and the extent of attributes currently reported. With the increase in data required and available for analysis, some associated processes will need transformation along with a robust infrastructure for data capture, reporting, corrections, and retention.

With CAT's demands comes the expectation that enhanced regulatory reporting, compliance, trade monitoring and surveillance, and improved order execution practices will all become possible as a result of enhanced CAT data. It is vital for broker-dealers to understand their internal data (trade and customer data) and its structure in greater depth. Analysis of CAT data is crucial for monitoring and reporting systems, policies, and procedures.

Trade and customer data will have heightened scrutiny from regulators. They are also areas where broker-dealers stand to gain from additional uses of CAT data. Analysis of such data can provide insight of how customer data is managed and transitioned internally and which accounts demand close examination (i.e. third party managed customer data vs. internally managed data).

We envision ways of using the data created for CAT to identify untapped profit potential, generate cost reductions and minimize regulatory reporting needs, while increasing firm-wide efficiencies for broker-dealers. Metrics that were previously unavailable, too costly, or too resource-intensive to obtain, will now become readily available for analysis and decision-making.

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# ADDITIONAL APPLICATIONS OF CAT DATA

## FRONT OFFICE

President and CEO of FINRA Robert Cook's speech in September 2017 speech illustrates the need for CAT by citing an example of how complex a simple equity trade has become: "For example, one order placed by an institution this past June for around 9,000 shares required more than 6,800 separate steps before it was fully executed."


Trade flow optimization and simplification will now be possible based on advanced metrics available as a result of the Consolidated Audit Trail requirements. By examining order- and execution-related data on a venue of execution basis (e.g. broker-dealer, ATS, crossing engine, dark pool, exchange basis, etc.), executing broker-dealers will

be able to identify potential cost, timing, and operational efficiencies. This new data will provide insight into the actual number of actionable events required to execute customer and proprietary orders. In addition, advanced metrics will now be calculable, as shown below.

In the past, most broker-dealers did not have a central repository for trade data as it was not required. As a result, multiple order management systems contained different sets of order and execution data as well as customer data. CAT will now push broker-dealers to make the investment in aggregating this data. This will create a high-level, holistic view of customer order trends and patterns, allowing a more customizable offering match to clients' trading styles and needs. As a consequence, front offices will be able to identify more efficient order routing practices.

## SAMPLE METRICS BY VENUE OF EXECUTION

METRIC	MARKET ORDER	MARKETABLE LIMIT ORDER	NON-MARKETABLE LIMIT ORDER	STOP ORDER	STOP LIMIT ORDER	TRAILING STOP ORDER	TRAILING STOP LIMIT ORDER	MARKET IF TOUCHED
FILL % (ONE ORDER - PARTIAL)	N/A	✓	✓	✓	✓	✓	✓	N/A
FILL % (MULTIPLE ORDERS)	N/A	✓	✓	✓	✓	✓	✓	N/A
SPEED OF EXECUTION	✓	✓	N/A	N/A	N/A	N/A	N/A	✓
SIZE OF EXECUTION (CONTRACTS)	✓	✓	✓	✓	✓	✓	✓	✓
PRICE OBTAINED VS QUOTE	✓	✓	✓	✓	✓	✓	✓	✓
LIKELIHOOD OF EXECUTION (VS EXPECTATION)	✓	✓	✓	✓	✓	✓	✓	✓
ADDITIONAL TRANSACTION COSTS	✓	✓	✓	✓	✓	✓	✓	✓
AT OR BETTER (FILLS)	✓	✓	✓	✓	✓	✓	✓	✓



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## INFORMATION TECHNOLOGY

It is expected that approximately 58 billion CAT-eligible records will be created daily, with peak message loads of up to 100 billion records per day. With approximately 1800 broker-dealers participating in the initiative, this averages to over 32 million records per day, per broker-dealer. Combined with an initial annual expected growth rate of over 25% year over year, the demands on broker-dealers' IT resources will be significant.

CAT compliance will increase the volume of data to be processed and stored (readily accessible for up to seven years from the date of the first CAT submission). Many firms will have to re-architect their existing platforms, which may become one of the most expensive IT rebuilds in the history of capital markets. Stronger forecasting of storage demands by product type as well as a better understanding of storage capacity demands by product type - as CAT data is produced - will allow for greater data storage efficiencies.

## OPERATIONS

Broker-dealers can benefit from CAT's aggregated collection of data on multiple levels, from optimized trade data reporting and transparency to operational and trading efficiency, and scalability.

Firms should aim to leverage CAT data to evaluate fail-to-settle patterns, settlement efficiency, and causal analysis by examination of corrections, cancels or fails and their relationship to trading platform, counterparties, clients, venue of execution, and trade owner. Operation teams will be able to identify a truer cost per trade, costs per customer, and proprietary trade costs beyond basic attributes such as commission per trade.

The value of data on a CAT staging table will enable firms to leverage this information and aggregate statistics to create a client profile and a comprehensive measurement framework. This dashboard reporting ability would utilize required fields for CAT reporting which could be enhanced with client account and client identifying data. Over time, this user interface would be able to capture all aspects of the trade lifecycle order and facilitate periodic/ongoing reviews which will augment processes and their relevance to the client /portfolio.

# COMPLIANCE AND REGULATORY REPORTING FOR CAT

## BEST EXECUTION

FINRA has made it clear that the advances in data quality and data capture have made it increasingly possible for broker-dealers to be able to perform more accurate analysis of best execution practices. Additionally, FINRA noted that “given developments in order routing technology, order-by-order review of execution quality is increasingly possible for a range of orders in all equity securities and standardized options. A firm that chooses not to conduct an order-by-order review for some orders must have procedures in place to ensure that it periodically conducts a regular and rigorous review of execution quality for those orders. . . . Conducting a regular and rigorous review of customer execution quality is critical to the supervision of best execution practices, particularly if a firm routes customer orders to an alternative trading system in which the firm has a financial interest or market centers that provide order routing inducements, such as payment for order flow arrangements and order routing rebates.”

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## TRADE SURVEILLANCE

Historically, compliance functions related to trade surveillance have relied heavily on manual, labor-intensive processes to analyze and process trade data. Multiple firms have attempted to build trade surveillance systems, however most came up short in either detecting manipulative behavior or producing too many false-positive results and triggering unnecessary investigations. Often parameters are adjusted to reduce the workload related to the number of alerts requiring investigation, rather than increasing the number of staff available to investigate all potential instances of manipulative activity. With the introduction of CAT, firms should take advantage of advanced technology to lead data collection and analysis, freeing compliance personnel to focus on building the framework for a robust post-trade surveillance program and investigating potential instances of manipulative activity. Compliance teams should leverage CAT for independent, comprehensive reviews of trade lifecycle, routing, and activity.

## CONCLUSION

The Consolidated Audit Trail requirements will place a significant burden on many departments across the broker-dealer. Reducing the CAT-defined requirements is not an option. It is therefore essential that broker-dealers identify opportunities to not only minimize redundancies in operations, regulatory reporting, and compliance, but also to profit and produce business opportunities derived from the newly created CAT data.

Divergent utilization of CAT data is essential for broker-dealers to ease the initiative’s financial and regulatory burden and to capitalize on its outcomes. Capco is uniquely positioned to provide both expert advice and overall implementation and execution services to identify untapped profit potential, optimize responses to regulations, and increase firm-wide efficiencies for broker-dealers.

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