

SEC Rule 613 – Consolidated Audit Trail (CAT)

Industry Outreach Event*

February 27, 2014



BOXSM
OPTIONS EXCHANGE



 **Chicago Stock Exchange**



DirectEdge
A BATS Global Markets Company



Financial Industry Regulatory Authority



* Call is being recorded

Overview of CAT NMS Plan

Rule 613, adopted by the SEC in July 2012, requires eighteen national securities exchanges and FINRA (collectively the SROs) to submit to the SEC an NMS Plan (CAT NMS Plan) to create, implement, and maintain a consolidated audit trail (CAT). The SEC granted the SROs' request to extend the due date of the CAT NMS Plan to September 30, 2014.

The CAT will be a comprehensive audit trail that will allow regulators to more efficiently and accurately track activity in NMS securities and OTC equities throughout the U.S. markets. The purpose of the CAT NMS Plan is to create a central repository for the SROs and the SEC to perform surveillance on order event data, linked to customer and account information and to permit regulators to efficiently and effectively perform market reconstructions. The repository will be used exclusively by the SROs and the SEC for regulatory purposes (including, without limitation, market surveillance and reconstructions) and to oversee market activity using complete life-cycle order data that is linked to customer and account information.

Initially, the CAT NMS Plan the SROs intend to submit will cover all NMS securities as required by Rule 613 and OTC equities. Within six months after the effectiveness of the CAT NMS Plan, the SROs must outline how non-NMS securities, including both primary and secondary transactions, and debt securities could be added to the CAT.

“A consolidated audit trail that accurately tracks orders throughout their lifecycle and identifies the broker-dealers handling them will provide us with an unprecedented ability to effectively oversee the markets we regulate,” said SEC Chairman Mary Schapiro.

The Consolidated Audit Trail (CAT)

SEC Rule 613 represents a paradigm shift in the regulation of U.S. markets with the creation of a central database covering all market participants across multiple asset classes.

The CAT will...

- Be the **world's largest data repository** of securities transactions
- Ingest approximately **58 billion** records of orders, executions, and quote life-cycles for equities and options **on a daily basis**
- Securely maintain data on more than **100 million** customer accounts and associated unique customer information
- Grow to an estimated **21 petabyte** footprint within five years of operation
- Maintain and support **thousands** of daily data and communication interfaces across the industry

..and as a result

- Will require approximately 2,000 firms and 19 SROs to report data (CAT Reporters)
- May drive changes in front, middle and back office operations
- May influence customer master information and associated processes (including client on-boarding, name/address changes, account relationship changes)
- Will emphasize the need for robust infrastructure for data retention and trade data repositories

Key Activities and Timeframe: Post- CAT NMS Plan Approval

Rule 613 dictates the following key activities and timeframes after the CAT NMS Plan becomes effective:

Build and Implementation Activities	Timeframe from the effective date of the CAT NMS Plan
SROs to select a plan processor	Within 2 months
SROs and member firms to synchronize their business clocks	Within 4 months
Implement SRO reporting	Within 12 months
SROs to implement new or enhanced surveillance system(s) to utilize the CAT data	Within 14 months
Implement broker-dealer reporting, excluding small broker-dealers	Within 24 months
Implement small broker-dealer reporting*	Within 36 months

* Small broker-dealers are defined as broker-dealers that “had total capital (net worth plus subordinated liabilities) of less than \$500,000 on the date in the prior fiscal year as of which its audited financial statements were prepared pursuant to Securities Exchange Act Rule 17a-5(d) or, if not required to file such statements, a broker or dealer that had total capital (net worth plus subordinated liabilities) of less than \$500,000 on the last business day of the preceding fiscal year (or in the time that it has been in business, if shorter)

CAT NMS Plan Key Milestones

Key Milestones	Date
✓ Request For Proposal (RFP) publication	February 26, 2013
✓ Formed the Development Advisory Group (DAG)	March 25, 2013
✓ Published request for comments on issues related to the CAT NMS Plan	April 22, 2013
✓ SROs filed selection process NMS Plan with the SEC	September 3, 2013
✓ Selection process NMS Plan published by the SEC for public comment	November 15, 2013
✓ NDA executed between SROs and Bidders	December 19, 2013
✓ Selection process NMS Plan comments due	December 23, 2013
✓ SEC approval of selection process NMS Plan	February 21, 2014
○ RFP responses due	March 21, 2014
○ CAT NMS Plan submission to the SEC	September 30, 2014
○ SEC approval of the CAT NMS Plan	TBD
○ Formal selection of Bidder	Within two months of SEC approval of CAT NMS Plan

Development Advisory Group (DAG)

The DAG members meet bi-weekly to discuss topics that impact the development of the CAT NMS Plan. The SROs utilize DAG feedback to identify those items that may lead to discussion with SEC staff, distribution to Bidders and/or communication to industry members.



DAG Discussion Topics

The following tables provide examples of key ongoing discussion topics that impact the development of the CAT NMS Plan:

Topics Discussed – To Be Shared Today
Elimination of existing regulatory systems
Reporting of options market maker quotes
Timestamps, clock synchronization, and clock drift
Cost and funding analysis

Other Topics Discussed
Implementation of Customer ID
Order handling scenarios (both equities and options)
Error handling and correction process

Key Topics

Sunsetting of Existing Regulatory Systems

Rule 613 requires the CAT NMS Plan to include “a plan to eliminate existing rules and systems (or components thereof) that will be rendered duplicative by the consolidated audit trail, including identification of such rules and systems (or components thereof)”.

A key consideration to sunsetting existing regulatory systems is data quality and data completeness. Until there is a demonstrated reliability that CAT data can be used for surveillance purposes, regulators cannot retire existing systems such as OATS and EBS

The SROs together with DAG members have identified three high priority systems for potential elimination: OATS, EBS and Large Trader

- Gap analyses for OATS and EBS have been posted to the public CAT website
- The SROs understand industry’s desire to retire components of Large Trader reporting with the implementation of the CAT, while noting that the SEC stated in its Large Trader adopting release that:
 - “The aspects of the large trader reporting rule that enable the collection of information on the identity of large traders, including a large trader identification number, would not be replicated or superseded by the consolidated audit trail and would remain as a key tool in the Commission’s oversight of the markets for the long term.”
- Other rules being examined include, for example, CBOE Rule 8.9 and PHLX Rule 1022

Sunseting OATS and EBS

Based in part on the gap analyses, the SROs intend to include OTC equities be included in the initial phase of CAT reporting to facilitate the retirement of legacy systems such as OATS and EBS.

Key considerations to sunset OATS

- The CAT needs to include the additional fields that would close an OATS data gap
- If all surveillance programs based on OATS data are not fully supported by CAT, OATS will be required to run in parallel until CAT is fully implemented and incorporated into those programs.

Key considerations to sunset EBS

- The following activities may influence the timeline to sunset EBS:
 - The CAT needs to include additional fields that would close an EBS data gap
 - Implementation considerations from SRO perspective:
 - EBS process will need to be supported until:
 - CAT includes all asset classes that are currently in scope for EBS
 - All broker-dealers submit data to the CAT
 - EBS process migrates to CAT data sources
 - EBS will need to be retained to support historical investigations

Inclusion of Over-the-Counter (OTC) Equities

The SROs have decided to include OTC equities in the first phase of CAT implementation.

- Benefits include:
 - Inclusion of OTC equities should present minimal additional burdens on CAT Reporters as many firms use the same order management and trade execution infrastructures for OTC equities and NMS stocks
 - Elimination of the need for CAT Reporters to filter OTC equities from systems that handle both OTC equities and NMS stocks
 - Sunsetting of existing regulatory systems (i.e., OATS and EBS) may be expedited by providing broader initial CAT coverage
 - Potential for a reduction in operating costs and resources to CAT Reporters associated with supporting multiple regulatory systems

Options Market Maker Quotes

The feasibility of having exchanges as opposed to broker-dealers report options market maker quotes without undermining the broader market reconstruction goals of Rule 613 or impairing market surveillance is being considered.

- Exchanges would submit to the CAT the options market maker quotes sent to them by broker-dealer market makers
- The cost for reporting options MM quotes could be substantial for broker-dealers, especially smaller options market makers, and could increase CAT processor costs related but not limited to:
 - Implementation and maintenance
 - Resolution of anticipated technical challenges in reconciling broker-dealer and exchange quotes (e.g. time-skews, QRMs and in-flight messages, band-width restrictions)
 - Scale of production, test and development systems to support a combined 30B quotes per day from exchanges and broker-dealers (instead of approximately 15B if only exchanges reported)

Timestamp Granularity and Clock Synchronization

Timestamp granularity:

- Rule 613 requires timestamps “which shall reflect current industry standards and be at least to the millisecond”
- Manual entry of order events and receipt of allocation instructions from the client, due to the nature of these processes today, likely cannot be accurately recorded at a millisecond timestamp
- The SROs are considering:
 - Timestamps for allocations and manual order events could be required to be accurate at least to the second yet reported in a millisecond format (adding zeroes as necessary)
 - For manual orders, firms would record and report to the CAT the timestamp when the order was received, which should be at least to the second and the timestamp when the order was entered into the system, which should be at least to the millisecond.

Clock synchronization:

- Rule 613 requires each CAT Reporter to “synchronize its business clocks that are used for the purposes of recording the date and time of any reportable events...to the time maintained by the National Institute of Standards and Technology” within four months of CAT NMS Plan effectiveness
- Additionally, Rule 613 requires the SROs to “evaluate annually the clock synchronization standard to determine whether it should be shortened, consistent with changes in industry standards”
- The SROs have decided, based on current industry standards, that 50 milliseconds is the appropriate maximum drift allowed on electronic order handling and execution upon initial CAT implementation

Costs to CAT Reporters

To understand how the CAT reporting requirements will impact the cost to CAT Reporters, key factors for consideration include:

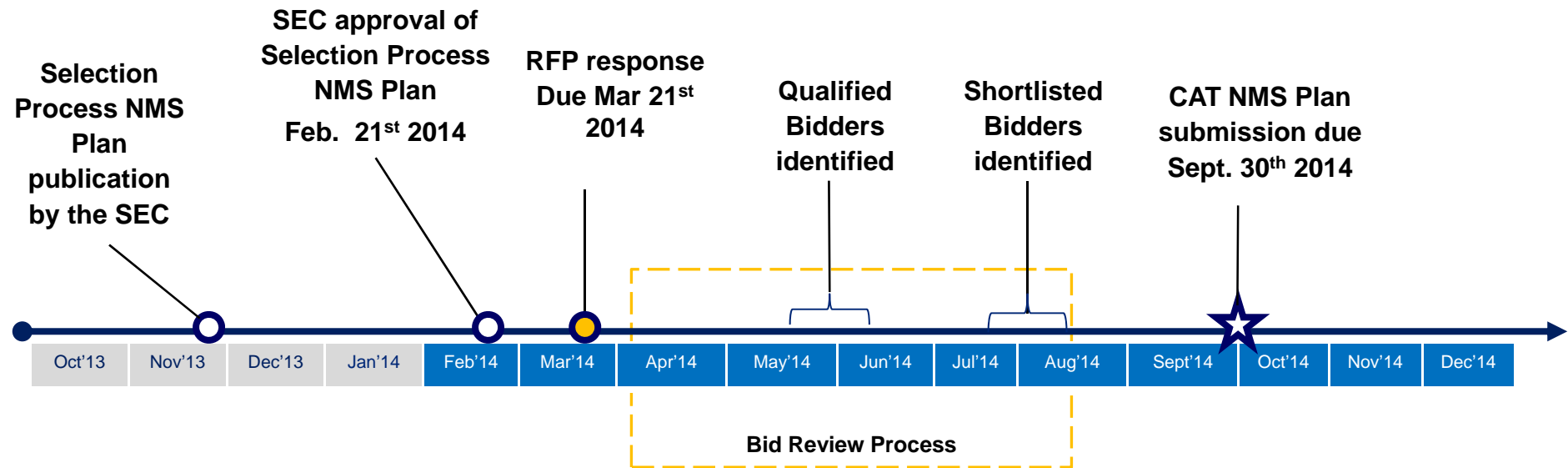
- Costs to build/operate the CAT
 - Technology costs
 - Operational costs
 - Administrative costs
- Costs and potential savings from introducing the CAT

Industry input is a critical component in the creation of the CAT. Adhering to the NDAs signed with Bidders and forthcoming NDAs signed with DAG members, the SROs plan to seek industry input on key areas such as:

- Reviewing the trade-offs when considering different options provided by Bidders
- Considering the cost-benefit analyses of various technical and operational components of solutions
- Identifying the cost implications that may arise in the interface between legacy and new systems

Next Steps

CAT NMS Plan Development – Next Steps



Note:

- The CAT processor will be selected within two months of the SEC's approval of an CAT NMS Plan

Feedback and Next Industry Outreach Event

The SROs maintain a dedicated website to provide information to the industry on the development of the CAT NMS Plan: www.catnmsplan.com

The SROs also have a dedicated email address to receive industry feedback: feedback@catnmsplan.com

Next industry outreach event

Another in-person event (with a call-in line available) will be held to review additional topics under discussion by the SROs and DAG:

- Location: Chicago at 111 South Wacker Drive, Chicago, IL
- Date: April 9

Additionally, there will be a CAT panel during SIFMA's Operations Conference:

- Location: Boca Raton, FL
- Date: April 28 – May 1

Questions?