

FIF Consolidated Audit Trail Working Group: Order Audit Trail Functionality
November 29, 2012

The Financial Information Forum (FIF) Working Group on Consolidated Audit Trail (CAT) is providing suggestions to the SRO's for consideration in developing the CAT Functional Requirements. These suggestions were consolidated based on the reporting experiences from the 50 firms participating in the FIF CAT Working Group. We believe there is an opportunity to improve the accuracy, efficiency and effectiveness of the CAT reporting interface through exploring issues or shortcomings of the current OATS reporting interface so that these problems are resolved in CAT.

If additional information is needed on any of these suggestions, or if further discussion would be helpful to the SROs, the FIF CAT Working Group would welcome the opportunity to provide additional detail or to meet to discuss these suggestions. Please note that these are preliminary recommendations that the FIF CAT WG expects to revisit as additional information becomes available from the CAT NMS Plan Committee.

Overall Goals

CAT reporting needs to be aligned with the business processes and order handling scenarios, otherwise it will be difficult, and more expensive, to implement accurate reporting.

Consistency should be an underlying principle of CAT in two respects:

- The rules and regulations adopted by the SEC should be consistent across the other regulatory bodies.
- All stakeholders in CAT – exchanges, third party vendors, OMS's, BD's, buy side and service providers, etc – should have equal access, responsibility and understanding of the handling of requirements, required changes and resolution of issues.

With the definition and implementation of CAT, it should be required to also eliminate the duplication of reporting and reporting systems.

Scope

To achieve the objective as set forth by the SEC Rule on Consolidated Audit Trail of collecting enough data to accurately reconstruct market events on any given day, including the reconstruction of the entire order books and trading sequences, it will be necessary to make all orders that are routed out reportable. Two examples of events that are not reported today are Market Makers reporting outbound orders if they make a market in the symbol or the outbound route reports to fill the customer order when a client asks for an average price.

Matching Functionality

The robustness and accuracy of the matching logic to be used by CAT is critical to the overall effectiveness of the CAT reports. The goal should be to minimize the number of false mismatches, thereby improving the reporting and reducing the burden of unnecessary corrections required by each firm.

- Two-way matching should be required, given that all firms will be reporting with CAT.
- Backward linking is required (forward linking implemented today) and should be possible given that both firms will report.
- As/of date matching should be implemented as well as re-run capabilities.
- The matching engine should be more robust, focusing on reducing errors (e.g., handling leading zeroes; continue to exclude time as a matching criteria). More sophisticated match logic with 99%+ certainty

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should be a CAT goal, given that the eligible transactions under CAT will be large, leading to the possibility of a larger volume of mismatches.

- One possible extension to matching logic could be to have a category “possible match”.

Error Correction

Significant labor is required to resolve and correct mismatches and errors in reporting. Functionality and tools that improve the error correction process is a worthwhile investment.

- There needs to be a capability within CAT to replace the whole trading day’s data, as well as a significant portion of the record set, e.g., via FTP of a replacement file.
- Some suggestions for the web site’s functionality:
 - Update capability, not just cancel/replace for records, reports, data base.
 - Repair mismatches,
 - Selective repairs,
 - View more than one page,
 - Change what is being reviewed /displayed.

Timing

A window longer than 5 days for corrections should be provided, especially given the breadth and volume of transactions being covered by the CAT ruling.

It is recommended that some data be gathered during the initial CAT implementation to determine the best time window for corrections and the window be adjusted accordingly.

Alignment with Business Scenarios

Alignment with business processes and scenarios should improve overall reporting effectiveness. There are scenarios that are problematic for reporting today, and should be resolved with CAT.

- Electronic orders sent in after manual phoned in orders – in some cases, a client calls in an order but then wants a fill via FIX. The fills are transferred from the manual order to the electronic order. Linking the manual order to the electronic order may present difficulties especially for options flow.
- There may be benefits to changing desk reports to mirror external route events. This would allow bunching of orders which is not a feature of desk reports today. If desk reports were treated like external routes the creation of a new order report as a result of desk routes would have to be explored.
- Business scenarios where there is no concept of an order, e.g., fixed income.
- Business scenarios where a dummy order is created just for the purpose of OATS reporting, e.g., Pink Sheet executions.
- Representative bunched orders, where multiple customers are behind one principle order at the firm, and later the executions are allocated accordingly. Allowing desk reports to be treated as internal routes may assist in aligning the business process with the audit trail reporting.
- FIX is used by all OMS’s yet there are inconsistencies between FIX protocol and OATS syntax/format that lead to errors and complexity in reporting OATS. Resolving these differences and exploiting links to existing financial industry wide protocols would improve overall reporting accuracy and reduce

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implementation complexities. Additionally, FIX supports multiple asset classes which will become important as CAT expands in scope.

- Limit the introduction of incremental fields which cannot be easily derived from existing trading system or books and record data. This ensures the accuracy of the data being submitted.

Combined OATS Records

- CAT should not require combined records. Firms should have the choice of submitting single event records which may simplify processing.

Report Card

Report Cards provided by CAT will be an important tool for firms to understand, and improve, its reporting status.

- Timely reports are essential to be valuable. Even reporting at end of next calendar month may not be frequent enough.
- Reporting AS OF transactions will make overall reporting more difficult. Revised reporting should be considered as a method to handle AS OF transactions.
- Reports should be rerun or reissued if corrections have been made on the other side. This will allow more accurate reporting and accountability on mismatches.

Scope – Reportable Securities

- Use of industry-standard lists of securities with ISINs should be explored upfront for equities and fixed income especially.

Common Format – Cross Participant

The responsibility of submitting data with the same formatting and rigor should fall equally to all CATS participants – broker/dealers and exchanges. Likewise, the burden of investigating and correcting mismatches should fall equally to all participants. The CAT validation process for all events and data elements should be clearly specified to allow for swift resolution of issues. These principles will eliminate many unnecessary mismatches due to exchanges currently submitting data dumps to FINRA with FINRA parsing the data into OATS fields. Errors in data conversions create mismatches for firms who are reporting data in the correct format. Some examples of mismatches that have occurred are the handling of case sensitive data or the inclusion/exclusion of leading zeros. More specificity on the matching rules (e.g., string comparisons with no conversions) would allow quicker resolution of mismatches.

Testing Environment

A CAT test environment is an essential element that needs to be provided by CAT for participating firms.

- A robust testing environment, both for initial implementation of CAT as well as for on-going regulatory changes, must be provided by CAT.
- A robust set of test data must also be available for use in the initial CAT roll-out and for ongoing regulatory changes.

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- A function within the test environment to provide a comprehensive view of all that CAT knows about the firm would be very useful.

Field Definitions

- CAT has an opportunity to improve the field definitions that will comprise the CAT specification. CAT specifications should be as specific as possible. Data elements should not be open for interpretation rather than referring to a rule set (e.g. use SEC 17a-3 as a guideline) CAT should focus on business process triggers (e.g., order received or acknowledged), . CAT could retire some OATS attributes that were needed only because of limited OATS view of order audit trail. Elements include Execution Type indicator (full/partial) and Cancel Type flag (full/partial).
- The CAT processor should be able to know which CAT Reporter-ID is an ECN and which is not. ECN-specific data elements could potentially be eliminated based on static data associated with CAT-Reporter ID.
- Complex logic of combinations between Order origination Code, Department Type Codes, Account Type Code, Member Type Code, Destination Code could be translated into something much simpler with CAT.
- Given the CAT central repository of customer information, it should not be required that static customer data be specified on every order. Only the dynamic data associated with each event should be required on an event message.
- Where possible calculated fields like Leaves Quantity could be calculated by the CAT processor rather than member firms.

Order Handling/Special Codes

- It is recommended to transition “Order Handling Codes” to a free form text box to eliminate the growing list of codes, many of which are firm-specific.
- There are several dozen Special Handling codes in OATS. Many do not seem aligned with actual trading or FIX definitions. One suggestion is that FINRA could review the history of OATS submissions across all firms and see if values that are mentioned less frequently, or not mentioned at all, have merit for surveillance.
- In an effort to standardize data elements, it is suggested that Special Handling Codes be synchronized with the FIX specification.

Exchange Participant ID

It may be possible to use the CAT –Reporter ID to simplify the current matching process (i.e., Exchange Participant ID, Routed Order ID, Connection ID)

Account Type Code

Having an industry standard definition of account type codes across exchanges and FINRA would be beneficial.