ORCHESTRADE

The last mile to TCO?

Taking the asset class out of the equation

IBOR changed the way businesses look at P&L and Positions in the front office. **Why stop there?**

The need to improve process efficiencies within financial firms has never been greater. Shrinking margins due to increased competition from low-fee passive products, the burden of regulatory reporting and the threat from new market entrants have forced financial institutions to look for even greater operational savings. Today's banks, treasury departments and asset managers must look at all areas of the equation, analyzing all bottlenecks and duplication across all asset classes in order to improve its Total Cost of Ownership (*TCO*).

One barrier to reducing the TCO is that individual asset classes have traditionally required their own technology platform and as most institutions have already or are moving into cross asset, the nirvana of a single multi-asset class investment management system has proven elusive.

The next generation **IBOR**

It's fair to say that the concept of the Investment Book of Records (*IBOR*) changed the way businesses look at their P&L and positions in the front office. Providing consistent management of position data on a single platform was a big step forward for institutions, but why stop there? There is an even greater need which should now be addressed — solving the total cost of ownership equation.

Many financial institutions operate within a complex matrix of knowledge, process and data flows, operating from the perspective of an asset class rather than a business event. This is because Operations require expertize from functional, development and support teams for each and every asset class.

What if the Subject Matter Experts could really focus on proactive analysis and fine tuning, with full scalability across different teams? What if you could effectively remove the asset class from the equation?

The answer is what we call the Trade LifeCycle Book of Records (TLC-BOR), a next generation Book of Records supported by a modern business event-driven process.

The margin **equation**

If we try to summarize the goal of optimizing margins as a simple equation, we find the following:

Margin = Trading/Treasury Revenue – Risk/Regulatory Control – IT and Operations Cost

When we look at recent history, we can see that market practitioners have generally been trying to optimize only one part of this equation at any given point in time.

For example, before the market crash, capital markets firms were mainly focused on trading revenues, with priority given to each specific desk's activities at any cost. The period was characterized by tailor-made deals, structured positions with high margins, high risk strategies coupled with low control, limited regulation and a dedicated, costly solution for every asset class. One reason for this was that many front office software firms began with a focus on just one asset class, such as derivatives, FX, or equities.

After 2008, risk and regulation became key elements when considering IT infrastructures and a proliferation of risk management systems came into existence. Within each form of risk, however, there was still a need for a specific process for every asset class ('specific' meaning expensive to operate, maintain or expand — and laden with operational risk).

Industrializing the trade **lifecycle chain**

As a consequence of this period of introspection, institutions are now considering whether it is possible to industrialize the whole chain from front to middle office to regulation to risk, focusing on innovation instead of maintenance and dousing regulatory bonfires.

In order to industrialize, institutions first need to understand and quantify their 'agility bottlenecks' from both a resource and process perspective. Once these bottlenecks have been evaluated, the institution can put in place a target solution.

While back office operations have become increasingly automated and now often achieve over 95% of STP (inception, confirmation, netting, settlements, accounting), there is still much to be done to automate the middle office. In many organizations, trade lifecycle management is a heavy consumer of resources and expertize because of their focus on a single asset class. There are now many more asset classes to analyze, and within each of these there are numerous subsets. There are often specific roles and responsibilities assigned to each of these asset classes and silos of knowledge persist.

Institutions require an efficient workflow for their trade lifecycle, but how do they utilize the same trade lifecycle for, say, a Rate desk and a Commodity one? Furthermore, if a new asset class is to be added to most systems this usually entails a huge expense. Institutions want to be in a position to scale regardless of the asset class.

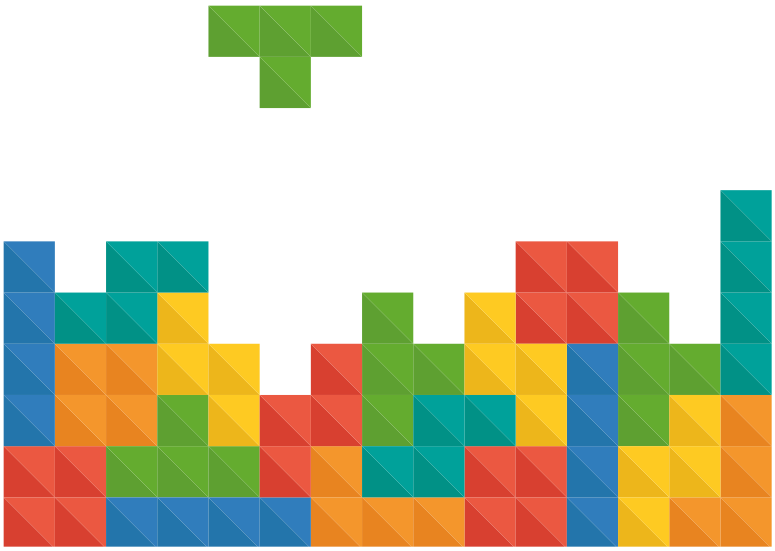
Smart **allocations**

It is therefore very difficult to define centers of subject matter expertize and be able to make smart allocations between the teams based on business priorities or urgencies.

As a result, many financial institutions operate within a complex matrix of knowledge, process and data flows, as illustrated in *Diagram 1*. This depicts an institution operating from the perspective of an asset class rather than a business event.

In this situation, a significant proportion of IT and Operational time is devoted to processing BAU (Business As Usual) activities, making sure that the internal processes are operating well and meeting requirements. There is little time or resource left for innovation.

Diagram 1:
Is your technology stack just getting taller and harder to maintain?



Adding new products or functionality to legacy systems that were built in a silo (asset by asset) approach is like managing a Tetris stack in your organization. It just gets taller and taller. Orchestrade's event engine approach is asset agnostic so there is only a singular event architecture to maintain.

Trade LifeCycle Book of Records (**TLC-BOR**)

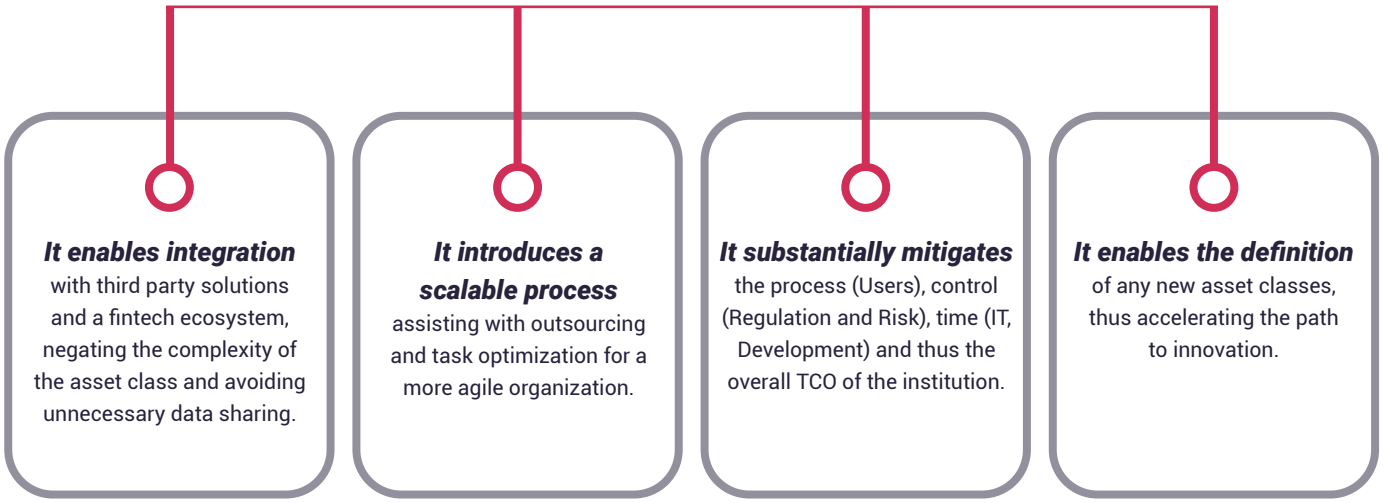
To address this problem, we need to look at the issue from a different perspective. In simple terms, every asset class is dependent on a list of business EVENTS, WORKFLOWS and financial DATA. An asset class can therefore be factorized into a list of events, a list of workflows and a list of data.

To monitor any trading activity, an institution will usually initiate a predefined list of actions for that asset class. Let's imagine if the institution could simultaneously validate a list of lifecycle events across any portfolio. It would then be possible to proactively define a list of triggers and compliance rules in a generic way. It is this business event-driven approach that underpins our concept of a Trade LifeCycle Book of Records (TLC-BOR).

With TLC-BOR, an institution will be able to analyze the following elements across a whole portfolio, irrespective of the asset class:

- Analyze patterns of behavior per event, grouping data and impact for each event modification, in this way reducing the time taken by the SME for analysis
- Allow the IT development group to focus on new event processing, saving development time and allowing more resources for deploying new products

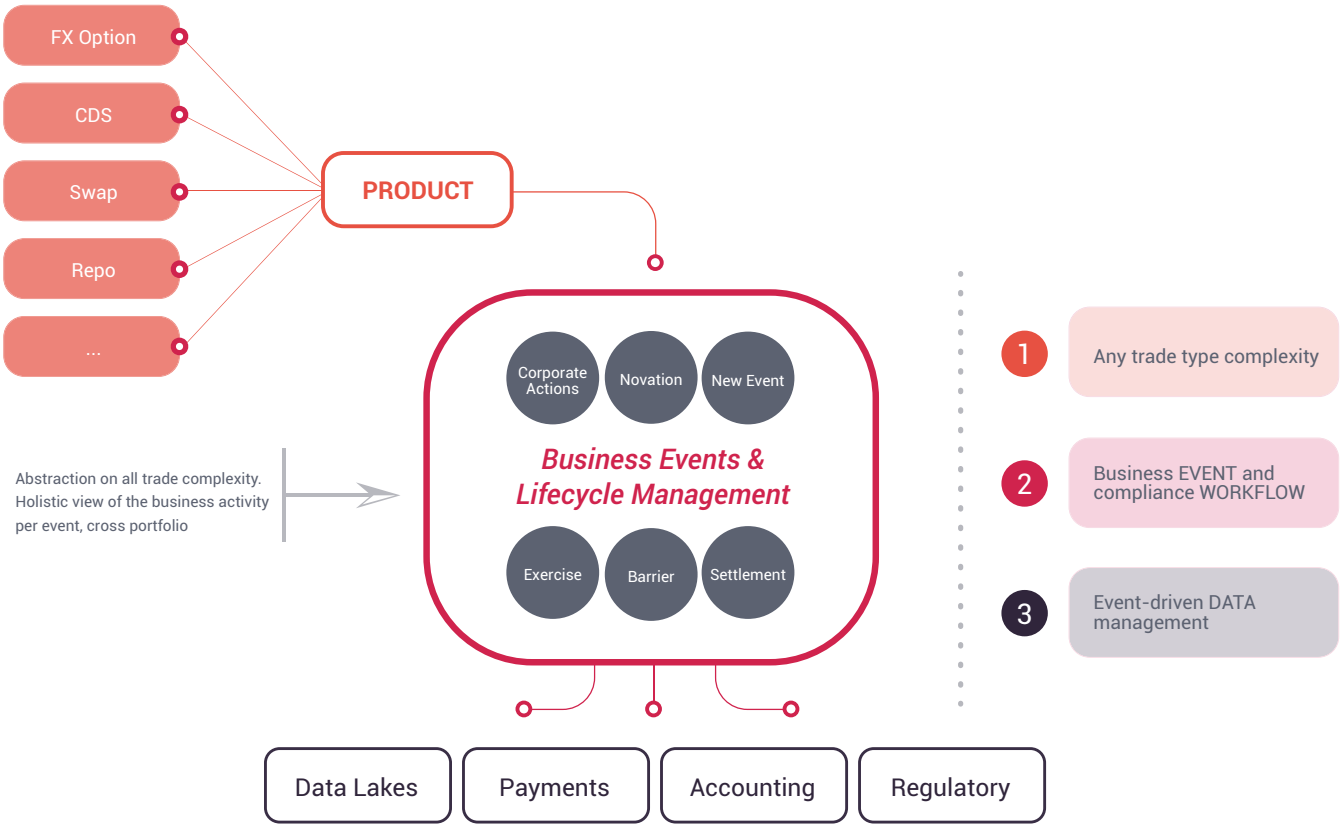
Trade LifeCycle BOR facilitates faster integration across all areas of an institution and provides a proactive view of the business and its controls:



A TLC-BOR approach creates a repository for all the trade lifecycle events that are happening across a business. *Diagram 2* illustrates how TLC-BOR operates, utilizing an event-driven architecture.

Rather than, for example, simply recording an equity swap transaction, a TLC-BOR records an audit trail for all the events that are occurring on equity derivatives as standard data. In this fictional equity derivative portfolio there might be 200 actions over a given period, which the middle office team can then analyze.

Diagram 2:
Trade LifeCycle Business Event-Driven Model



Underpinning each product is a dictionary of events. A TLC-BOR looks at how any of these business events are connected — what will the impact be on other areas. If an institution wishes to add a new trade type that is the sum of, say, events 1+2+4, the firm can then associate these and customize the rules engine workflow.

The other great benefit of a TLC-BOR is that it is very easy to put a trigger on the event to alert other downstream/upstream systems. Business events can be published wherever necessary (such as Data Lakes or Compliance), in real-time. Institutions can then apply machine learning to this event and data, analyzing to look for patterns.

In this way a TLC-BOR is producing data, segregating the data category and enabling the institution to leverage it.

Summary

We looked at the underlying problem of asset class for institutions and why they kept replacing one solution with another, before getting locked into the second solution. This is the problem we have solved with Trade LifeCycle Book of Records.

TLC-BOR allows a combination of specific workflows, exception rules, data analysis, compliance and trade lifecycle processing in real time across an institution's entire portfolio, where they were previously locked into different legacy solutions and dedicated expertize.

To date, there have only been event-based systems from a workflow perspective — pushing data or notifications to individuals. With a TLC-BOR, for example, firms could define a corporate action or a credit action knowing that this could (if needed) be applied across all required asset classes. In this way institutions can introduce new products to market with exceptional speed.

TLC-BOR during COVID-19

Our open architecture, cloud-enabled technology, very light code-base and ability to deploy and manage remotely has given us the opportunity to assist clients in lockdown. For example, TLC-BOR allowed us to meet a treasury demand from one of our customers; our business event-driven approach enabled us to model the full process for this institution, define the desired features in an agile way and deploy the solution remotely — all during lockdown.

TLC-BOR delivers financial intelligence and processing for any asset class with a more automated trade lifecycle across the entire organization, irrespective of the underlying assets, and frees up resources for any market or regulatory changes.

Is it time for your organization to consider whether its future business direction can be supported by solutions devoted to only specialized, niche asset classes?

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