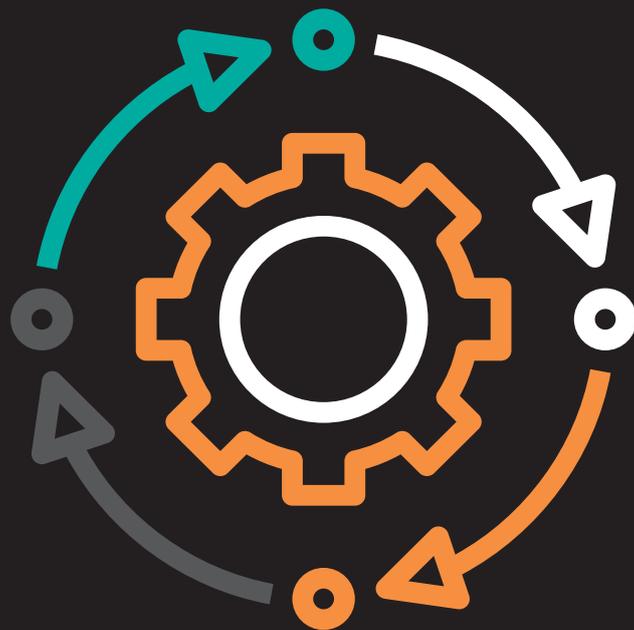


ONE SYSTEM TO RULE THEM ALL

The arrival of a unified trading platform for OEMS & PMS (POEMS) that is truly best in breed



The architecture of trading technology has remained static even as other parts of trading infrastructure leapt forward. Artificial intelligence, faster technologies and blockchain have all revolutionised parts of the desk, but yet many firms are stubbornly hanging on to discrete EMS, OMS and PMS systems they've had since the turn of the century.

There have been attempts at joining certain parts of these functions together. However these systems never became the industry norm and many firms haven't upgraded their legacy systems for fear of complicated integrations that will force firms to work with sub-standard pieces of technology.

Although there have been some attempts at integration by bringing together the elements of OMS and EMS or developing workflows to share data simultaneously between the order and portfolio management systems. The vast majority of this multi-trillion dollar industry actually still uses separate providers for each discrete component. It can be a clumsy and complicated system and one that ultimately stands in the way of efficient trading and ultimately enhanced returns.

This paper will explore why now is the time the industry is capable of creating and deploying high-calibre, linked portfolio management, execution management and order management systems in one single place. It will also explain how TORA has the ability to place all best of breed systems in all three categories into a single, unified platform today.

OUT OF MANY, ONE

To understand the significance of convergence, it's useful to look at the evolution and historical differences between each component part of the system, all of which date back decades. Records of trades, which were made by traders on the physical trading floor, were originally kept in stacks of books for inspection by nascent compliance departments or local regulators. In the 1980s, the increasing availability of computer systems and power meant these processes were digitised. Three separate systems emerged:

Execution management system – Execution traditionally was handled by internal, in house systems inside buy-side companies. They have their origins in single dealer firms who placed a priority on speedy and accurate trade execution. These developed more recently,

as trade velocity and volume become more important to a new generation of hedge funds. The EMS is the ultimate tool of the trader as they try to beat the market.

Order management system – Order management, however, was the realm of technology providers. The first ones loaded positions at the beginning of the trading day, but these systems had to evolve with trading styles. Traditionally these functions were handled by software providers, which often caused long winded installation periods in order to work inside buy-side funding architectures.

Portfolio management system – These high-level overviews allow clean and up-to-date positions and cash information at an overall portfolio level. Primarily used by the portfolio manager, effective systems make it simple to track changes in investments across asset classes, regions and most importantly time, combining real time P&L analysis with the larger context of performance and market moves.

SEGMENTATION AND UNIFICATION

Once these individual systems were created, a symbiotic relationship formed between the people developing the technology and those using it. Whether in-house or increasingly with outside providers, EMS development, for example, focused on the needs of the trader. And then job descriptions and roles were increasingly aligned to the capabilities of the system. An EMS worked for a trader and traders worked with their EMS.

As systems continued to develop and gain features, be they new algorithms or reporting capabilities, specialization continued. An arms race developed. Software firms focused on selling discrete components where they were 'best in breed' and in-house technologists assembled a software stack that combined elements from each system. Much of the job of in-house professionals came down to selecting and then implementing the installation of these systems.

The disadvantages of this approach were manifold, even if the solution was not readily apparent. Smaller funds end up suffering because they need to buy two or three systems which is not only operationally inefficient but also drags performance. Larger funds faced complex integrations that meant it was hard to shift providers and vast amounts of time were spent on system architecture.

This process has accelerated in recent years as 'traditional' buy-side roles have started to blur and break down. This might have started at smaller funds, where the portfolio manager and trader were the same person, but fee and regulatory pressure have expanded the job roles of almost everyone who works at an investment firm. The formerly one to one ratio between technology systems and employees (aka the trader only communicates with the EMS) was less and less common. Increasingly this meant they spent time switching between incompatible or poorly linked systems, moving the same data around in the course of their job.

MOVING PAST PATCHWORKS

Integration is the self-evident answer. However, moving from concept to implementation has taken more than a decade. Leading firms will not use integrated solutions unless they truly represent the apex of existing trading technology. The earliest efforts to do this have been from a provider stronger in one particular area to acquire the other parts of the POEMS. The result is a system that is technically a POEMS but with completely different interfaces and inputs for each 'parent' system. Some of the most valuable benefits of a combined system – seamless data transfer, easy switching and consistent user experience – are not possible. Asset managers have voted with their feet and largely avoided these systems.

The only reasonable solution is a provider who created all three systems from scratch. This would ensure seamless communication from the ground up. The catch is that each individual part of those systems would need to be at the market-leading standard of industry leaders. With one company, the full benefits of integration can come through.

TORA has now built and released that system. It is a true milestone in the industry – the first time a fully functional and integrated portfolio, execution and order management system has been available. Traders can now use a single login to access the full system, which is all developed, based and available in the cloud.

HOW TORA MADE A WORLD CLASS PORTFOLIO MANAGEMENT SYSTEM

For TORA, the company already operates best in breed OMS, EMS, compliance, reporting, post trade and analytical solutions that can be available as individual components or as one combined leading OEMS. Whilst of course some users still prefer to have multiple vendors and make use of TORA's individual components, the integrated and cloud based OEMS has been very popular among leading global hedge funds and asset managers wanting one single and easy to use platform for all their EMS & OMS requirement. This year the firm released a new generation of its PMS, the final piece in true integration.

This isn't just any PMS though, TORA spent thousands of hours to create functionality that portfolio managers demand. The platform includes a new general ledger, advanced swap SWAP contract modelling, rapid time series functions, impressive charting capabilities and dashboards. The real time general ledger will deliver trial balances, a full balance sheet and income statements. There is also the ability to show and reconcile the shadow NAV, all features essential for today's hedge funds. Our new time series reporting also gives clients access to historical Profit & Loss snapshots

over any time period. The cached data storage means that bespoke reports can be produced faster and more efficiently. The system also comes with a large number of pre-defined intuitive charts for clients to select from and has the ability to customize new charts. A modular interface gives each individual user the ability to create the best possible display for the way they work.

THE COMBINED FUTURE

The entire financial system, from the buy-side to sell-side, will benefit from this leapfrogging step in design architecture. The change is especially relevant for new funds who can deploy the entire system rapidly, which could ultimately help them to launch their fund earlier. Very large institutional funds with large risk, compliance and trading departments and complicated relationships can also experience much better operational efficiency.

At the center of this is a simple development: all the individual components EMS, OMS and PMS were already best in breed before so now combining them all together - everything just simply works. The result is deeper insight on current and historical trades, improving the decision making process and allowing funds to be more flexible than ever before. This is perhaps the beginning of a last phase in a trading platform journey that has been going on for decades. Both TORA and the industry are no longer ideating or imagining what a best-in-breed solution might look like while making do without compromises in the present, TORA has instead built a truly comprehensive product that is available today.

ABOUT TORA

TORA is the leading global provider of advanced investment management technologies supporting the full trading lifecycle. TORA has a full suite of cloud-based SaaS delivered execution, analytics and compliance tools, as well as order, portfolio and risk management capabilities and a global FIX network.

TORA's products are utilised by hundreds of the industry's leading hedge funds, asset managers, proprietary trading firms and sell-side trading desks globally. TORA has over 250 employees globally. With its headquarters in San Francisco TORA has offices across the globe including New York, Hong Kong, Tokyo, Jersey, Romania, Singapore and Sydney.