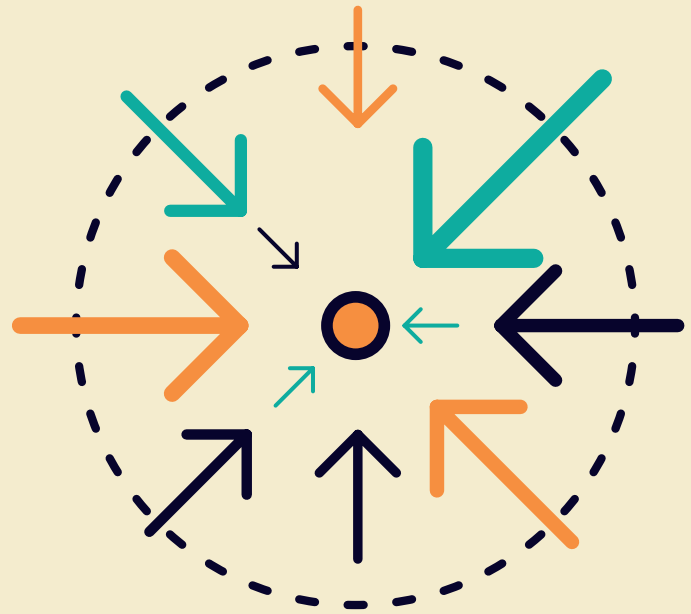


TORA CONTINUES TO WIN IN THE OEMS MARKET AFTER WAVE OF CONSOLIDATION



Much has been written recently about the wave of consolidation that hit the OMS/EMS space in 2018. We have seen the majority of these larger independent firms be acquired by investment banks and software companies.

Clients of these OEMS firms may have reasons to be concerned about commitments to product roadmap promises, client support levels, potential conflicts of interest and data privacy. As a leading, independent OEMS vendor, TORA was neither distracted by an acquisition in 2018, nor will it be in 2019. TORA's ability to stay firmly focused on our clients in 2018 was evidenced by the growth and market momentum we generated during the year with sales, product development, and partnerships, each firing on all cylinders.

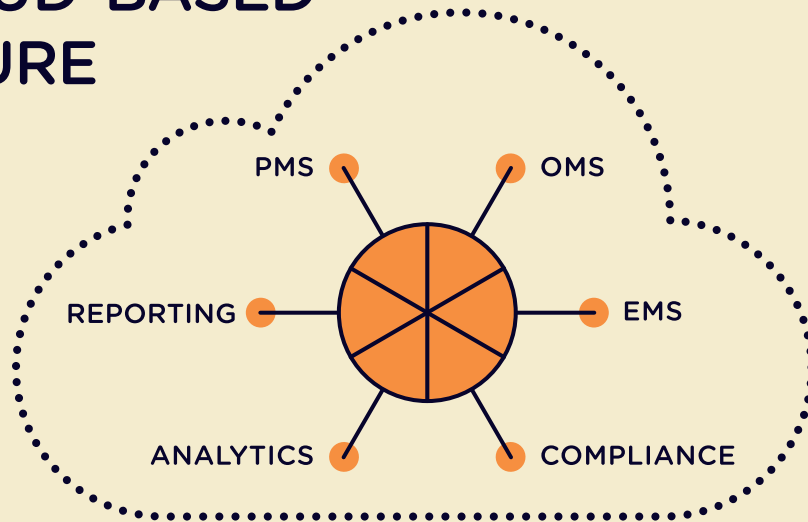
On the right are some of the highlights and milestones our team achieved over the past 12 months.

DURING 2018, TORA:

- Selected by multiple funds across Europe and by one the fastest growing hedge funds in Asia.
- Displaced the most widely used OMS and EMS platforms on multiple occasions including for a global multi-billion AUM fund
- Grew revenues by more than 20% and increased staff by 10%
- Supported clients' trading of over \$100 billion in volume per month on average
- Supported clients' trading activities on over 100 exchanges daily across equities, derivatives, FX and other asset classes

A FOUNDATION FOR SUCCESS

TORA'S CLOUD-BASED ARCHITECTURE



Since TORA's inception, TORA solutions have been fully cloud-based, providing levels of flexibility, reliability, and scalability that far surpass what legacy systems can offer. Leveraging the cloud, our solutions deliver many benefits and advantages, including:

- Faster and easier implementation and deployment
- Simpler integration with other systems
- Smoother and less disruptive upgrade processes
- Flexible ways to adapt the system to meet evolving business needs
- Significantly lower total cost of ownership (TCO)

Another important way in which our platform differs from many competitors' offerings is that it was developed all in-house, and it works on a single, unified codebase. Other solutions have resulted from acquisitions whereby the acquirer combined its OMS with the acquired EMS, or vice versa. These bolt-ons result in two completely different systems, which essentially means the client ends up with two different products, two sets of support and two development queues. From an IT perspective, products with mixed codebases are notoriously unreliable, and often are difficult and time-consuming to troubleshoot when problems arise. Whereas, the TORA OEMS platform, being built on a single codebase, it has none of these issues.

As for innovation across the various functional areas included under the OEMS umbrella, TORA continued its proven track record of delivering advanced capabilities and industry-leading client services.

The next pages highlight some of the key items we have delivered across these important functional categories.



TOOLS FOR BEST EXECUTION

Asset managers are under increasing competitive pressures and regulatory mandates (e.g. MiFID II) to take “all sufficient steps” to achieve best execution. On top of an already robust solution that provides access to hundreds of algo suites, a range of intraday monitoring tools and broker-neutral independent post-trade TCA, TORA has recently:

- Introduced its new AI-powered **AlgoWheel**, a quantitative execution strategy optimizer that uses advanced AI technologies to automate low-touch order execution or provide real-time market intelligence for orders requiring human intervention. This solution provides a feedback loop that uses historical and real-time order-level execution information to identify the optimal broker-algo and inform the trading decision making process.
- Added a new, **AI-Driven Pre-Trade TCA tool** that utilizes an extensive library of historical global market data and AI techniques to accurately estimate price slippage for trades before they enter the market, so traders can determine the optimal place to send their orders.
- **Partnered with OTAS Technologies**, a specialist provider of market analytics and trader intelligence, to integrate OTAS Portfolio and Trading Analytics applications into the TORA OEMS. OTAS Trading Analytics alert traders in real-time to exceptional occurrences in volume, price, liquidity and spread.



ENHANCED TRADING TOOLS

The new **TORA Pairs Trader** is low-latency and highly customizable to enable traders to trade 1,000s of pairs trades across currencies, regions and asset classes at the same time. Newly enhanced algorithms designed specifically

for the product have been fine-tuned to respond instantly to market changes to provide control over execution parameters including concurrency, slippage, slice size and tolerance.

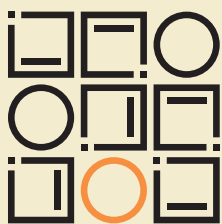


OEMS & COMPLIANCE

These functions are at the heart of investment operations for every asset manager and hedge fund for their ability to organize all a funds data in one place and protect the firm from taking positions that would violate a client's or the firms' compliance rules. During 2018, TORA made advances in each of these areas by introducing new or enhanced capabilities for each.

Some of the highlights are:

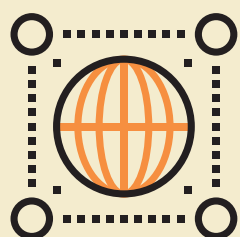
- Introduced the **TORA Ticketing System** which provides advanced pre- and post-trade allocation, trade reconciliation, commission management and IBOR functionality. Its fully automated allocation, matching and reconciliation power key features including block formation and allocation; commission, cost and fee schedule management; support for complex rounding and aggregation methodologies per counterparty; automated trade pairing and matching at the block and allocation levels, and more.
- Delivered innovative portfolio management capabilities with **TORA Rebalancing**. This solution helps asset managers reduce risk and improve workflow efficiencies by streamlining the rebalancing process. TORA Rebalancing makes it easy for PMs to adjust allocations and weightings to maintain their portfolio's risk-return characteristics. It also makes it easier for firms to manage subscriptions and redemptions, construct portfolios, and share and repurpose portfolio models.
- Enhanced **TORA Compliance** with new Auto-Resolve capabilities. Auto-Resolve eliminates the need for traders to cancel orders that breach compliance limits by giving traders the ability to correct an order on the spot, without having to cancel, change and re-enter it. There is also the option now to configure specific fields in the platform to auto-correct, where the platform will bring orders into compliance automatically with no workflow interruption.
- Helped clients meet MiFID II requirements by adding new API-level integrations across all Approved Reporting Mechanisms (ARMs) and Approved Publication Arrangements (APAs).



CLIENT SERVICES AND SUPPORT

Buy-side firms differentiate themselves with unique investments strategies and approaches that can be difficult to support 'out-of-the-box', even for systems as flexible and powerful as the TORA OEMS platform. For these situations, we established **TORA Labs** and continued to strengthen that team in 2018. TORA Labs is a group of highly experienced software engineers who are exclusively focused on solving our buy-side clients' pressing problems and meeting their unique

requirements. Clients can engage this dedicated team to develop custom features, bespoke workflows and other, client-defined platform enhancements. In addition to TORA Labs, we offer top-quality technical support and customer service. Staffed by our highly trained specialists, and with services provided from offices in North America, Europe, and Asia, our world-class services are always available and nearby for TORA clients, wherever they do business.



OPERATIONAL CAPABILITIES

Heightened competitive pressures and fee compression have all forced firms to rethink their operational staffing, workflows and technology.

TORA launched its new **TORA Reporting** solution, giving asset managers the ability to see and report on their trading operations anytime, anywhere.

TORA Reporting lets users perform calculations on any data source and create reports with clear visualizations and charts. The new solution is integrated into the TORA platform and can be accessed via the web or on a mobile device, giving users an immediate view into their trading operations.



TORA provides everything a firm needs to run a fund: portfolio, risk, order and execution management systems, and compliance and analytics engines - all available individually, or as one integrated and unified platform. As a proud independent vendor we look forward to delivering against our product and service commitments for 2019 and beyond.

TORA.COM



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Gerritt Van Wingerden
Managing Director



Chris Jenkins
Managing Director

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