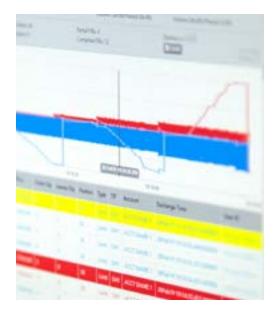
## 6 REAL-WORLD EXAMPLES OF HOW TT<sup>®</sup> TRADE SURVEILLANCE SOLVES TRADE SURVEILLANCE AND COMPLIANCE CHALLENGES

TT Trade Surveillance is the financial industry's first fully hosted trade surveillance solution offering both machine-learning-powered and user-configurable models. TT Trade Surveillance is fully integrated with the TT platform, which allows both traders and compliance staff alike to seamlessly access TT Trade Surveillance to identify trading behavior that may prompt regulatory inquiries. We've worked with a number of organizations across the globe to implement the application's unique compliance surveillance capabilities. While the attributes of these firms vary significantly, they have all uniquely benefited from TT Trade Surveillance's enhanced detection capabilities and workflow efficiencies. Each firm presents a unique set of regulatory challenges, which have been successfully mitigated with the implementation of TT Trade Surveillance's technology. Below are some specific examples of how our surveillance solution has helped real-life customers.



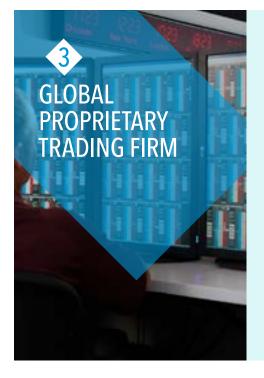


Facing a substantial fine for manipulative trading activity, a large commercial firm was in a time-sensitive pursuit of surveillance software to help mitigate both the potential fine amount and any negative publicity. This would be the first time the organization's compliance team would utilize a surveillance solution to monitor all internal trading activity. After reviewing the capabilities of several different surveillance systems on the market, the organization selected TT Trade Surveillance primarily because of TT Trade Surveillance's machine-learning powered Spoofing model. The model has been trained with data from real regulatory cases to automatically detect and classify potentially manipulative trading activity. The organization believed that this technology was ideally suited for them as they do not have a large compliance team and cannot manage a bulky legacy surveillance system. Another standout reason for choosing TT Trade Surveillance was the extraordinarily efficient implementation process. This firm's traders are currently executing orders on the TT platform, which enabled quick implementation of surveillance monitoring throughout the organization. All order activity was seamlessly transferred via FIX Drop Copy and available for immediate access by the organization's compliance team. By choosing our solution, the compliance staff is now equipped with the financial industry's most advanced surveillance tools to help avoid future fines and further demonstrate a strong commitment to compliance.



A leading global brokerage and financial technology company contracted to utilize the TT surveillance solution to oversee internal trading activity in their European offices. While this company already had a third-party surveillance system in place, they determined that our "risk scores" and award-winning visualization tools, like Heatmap and Outlier Chart, provided a more comprehensive and accurate assessment of regulatory risk than their current system for the firm's 100+ traders. This company also viewed our Market Ladder Replay tool as a key differentiator when compared to other systems, as it provides users with a frame-by-frame replay of trading activity on an exact replica of TT's patented MD Trader® ladder and includes level II market data for nearly every futures market in the world. Although most of the firm's traders were using TT, a handful of traders were using alternative platforms for trade execution. Therefore, it was pertinent that their surveillance solution connects to third-party platforms as well TT. TT was able to satisfy this demand with FIX Drop Copy, which pulls order activity from any platform, including third-party vendors and proprietary systems, into the TT platform and stores it indefinitely. TT's platform compatibility as well as its market-leading visualization tools ultimately drove this firm's decision to choose TT as their trade surveillance solution. In doing so, the company's compliance team now has immediate access to trading activity across multiple platforms for a comprehensive assessment of the firm's compliance risk.





FIX Drop Copy, which consolidates global order activity across multiple platforms for quick identification of risky trading behaviors, played a significant factor in a large global proprietary trading firm's decision to select TT. The firm, which previously relied on their broker to provide alerts to potentially highrisk activities, had decided to purchase an in-house, streamlined compliance system for monitoring its 100+ traders across multiple regions. In doing so, they required a surveillance solution that would connect with TT's software as well as other third-party platforms. TT's FIX Drop Copy did just that, seamlessly consolidating activity from the firm's order-entry platforms-however, it was our advanced detection of spoofing behavior that ultimately drove the firm to choose TT. By leveraging machine learning and behavioral analytics, we help compliance professionals more accurately and rapidly detect patterns of trading that regulators could potentially flag as spoofing. With TT, this company is equipped to proactively identify and address potentially risky trading behavior and record all of their reviews in our fully integrated case management system.

For a leading proprietary trading firm, TT Trade Surveillance offered machinelearning powered spoofing detection capabilities that the firm couldn't replicate using their own proprietary surveillance solution. In addition, TT Trade Surveillance's unique visualization tools, such as Heatmap, Scorecard and Market Ladder Replay, enabled the firm's compliance team to monitor all internal trading activity and detect high-risk activity with minimal effort. Furthermore, the firm was able to upload historical data for analysis by TT Trade Surveillance's machine learning technology and quickly analyze past trading activity to prevent future high-risk trades that could draw regulatory attention.

## U.S.-BASED PROPRIETARY TRADING FIRM



With a small team of traders utilizing TT for order entry, a global oil and gas organization required a compliance solution that would seamlessly integrate. TT Trade Surveillance's ability to pipe external data into the TT platform via FIX Drop Copy ensured that the firm's order activity would be accessible via the TT platform. In doing so, the firm will retain access to TT Trade Surveillance's advanced machine learning analytics and state-of-the-art visuals throughout the migration process. Additionally, the company will avoid the additional costs and resource-draining hurdles associated with reconnecting a surveillance system to a new trading platform when they migrate to the TT platform.

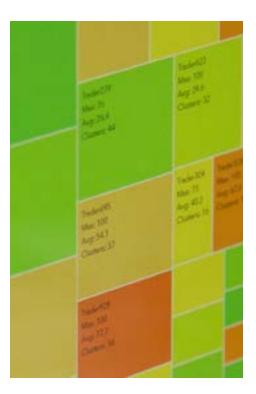
One TT customer, an Asian asset management firm, was in search of a market surveillance solution that would allow their compliance team to monitor trader activity and gauge the firm's overall compliance risk while also providing individual traders with the tools to replay and analyze their own trading activity. Since TT Trade Surveillance is fully integrated with the TT platform, with just the click of a button, the firm's compliance officer and team of traders now has access to TT Trade Surveillance's advanced compliance surveillance capabilities. They also have access to TT Trade Surveillance's Market Ladder Replay, which provides the firm's traders with a frame-by-frame replay of their trading activity overlaid with market data on a ladder-style interface, to review complex trading strategies.







Clearly the integration of TT Trade Surveillance with the TT platform makes advanced machine learning technology accessible to firms of all sizes, from the largest global bank to smaller organizations like this asset management firm. By removing hurdles associated with legacy compliance systems, such as parameter setting or the need for a dedicated server, TT Trade Surveillance brings advanced AI technology to every type of participant in the financial industry for the first time ever. If you're a compliance or risk professional, contact your TT Sales or Customer Success representative and request a trial to experience the most advanced trade surveillance offering in the futures industry for yourself. If you're an individual trader on the TT platform, you can start using TT Trade Surveillance by contacting your TT administrator and requesting that they activate TT Trade Surveillance.



## CONTACT TT

Contact your local Trading Technologies representative or email sales@tradingtechnologies.com to learn more about TT Trade Surveillance.

