



**EFFECTIVE SURVEILLANCE
TIME FOR A NEW APPROACH**



**A DATA-DRIVEN
APPROACH**

Effective Surveillance - Time for a New Approach



EFFECTIVENESS

Why is trade surveillance still such a challenge for Financial institutions? Why is it that despite the millions of dollars spent on off-the-shelf solutions, banks are still struggling to meet the expectations of the regulator (particularly in OTC markets)? Operationally, the cost of false positives has been crippling – especially in volatile times (as highlighted at the start of Covid-19). Such challenges have prompted Financial institutions to rethink the techniques used to monitor their traders, algos, clients, salespeople and fund managers. Trending and behavioural analytics are new and in-vogue approaches, but these only paint part of the picture. A comprehensive data-driven approach, configured to the business model of the financial institution, can both massively increase the effectiveness of surveillance and massively reduce the cost.



Increasing effectiveness – what does this mean and how do you achieve it?

A good place to start with answering this is to define what effective means. In working with our clients, a reasonable definition is as follows:

A DEFINITION

Effective Surveillance: Identifying potential malfeasance, market disruption, or unfair practice, actual or intended, of any employee, client or algorithm, in a manner that reflects the risk profile and trading characteristics of the firm across all asset classes, Listed and OTC





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What does this mean in practice?

In practice, as mandated by the regulator, this means that institutions have to think about their own business model, not an abstract generic one, and map it into their Surveillance system. This is a new mindset when it comes to Surveillance systems as it forces institutions to think about how their internal organization is structured and how they want their Surveillance system to monitor their information flows and risks. In order to achieve this from a systems perspective it is vital that a solution is comprehensive, scalable, flexible and customisable. In reality this means the solution must, at a minimum facilitate the following:

Requisites for Achieving Effective Surveillance

- Monitoring all asset classes in one place
- Monitoring the specific characteristics and attributes of the areas and markets under surveillance
- Monitoring according to the specific Operational model of the firm
- Use of multiple techniques for blended and correlated surveillance
- Monitoring pre-trade and post-trade activities and data flows

ACHIEVING EFFECTIVE SURVEILLANCE



Monitoring all asset classes in one place requires data consolidation to aggregate the disparate and expansive data sets required by both humans and machine learning techniques to identify the actions and links that may infer malpractice. Consolidation makes manual investigations quicker and more effective by placing the relevant audit trail, documents and event history at the fingertips of analysts in one location rather than manual searches and time consuming correlation of supporting assets. It also enables behavioural analysis through statistical analysis and machine learning techniques.

Different markets have different exposure profiles and require corresponding different approaches. Searching for spoofing, for example, in illiquid markets is both unnecessary and inappropriate. Where appropriate they may have to address the relationship between products, trading vs hedging vs treasury transactions, high-frequency vs standard trading strategies and timeliness of monitoring in terms of real time or retrospective.

It is critical that institutions monitor according to the specific Operational model of the firm and business lines such as capital markets, private wealth, asset management, process such as price discovery (RFQ management, order placement and client segregation) and risk profiles based on roles such as traders, clients, sales and advisory.



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MEASURING THE COST



Use of multiple techniques enables a holistic and blended view that provides context that regulators are increasingly demanding from surveillance teams. Techniques include the ability to identify a defined pattern of events that could indicate potential malfeasance e.g. Front Running, Insider trading, Spoofing etc. They may provide the ability to identify potentially risky actors / groups of actors (e.g. Traders, desk etc.) through cumulative suspicious behaviour over time or the ability to identify behavioural outliers and trends across multiple factors (e.g. trade alerts, P&L, return on capital, comms alerts etc.) against “normal” behaviour compared against self or against peers. The approach contrasts with traditional black-box based compliance that has had limited success in detecting fraud because its focus is too restrictive and moreover lacks the transparency now demanded of regulators in explaining how risks are monitored.

Pre-trade and post-trade monitoring includes analysing orders, tracking the organization’s RFQ process and linking to the final execution so that all events and interactions with the client leading to a trade are captured. This should extend beyond transactional interactions alone and include ecomms/chat so that abuses like front-running, quote stuffing fictitious orders may be revealed as part of the complete profile and the context it provides.



Costs of Surveillance have rocketed as regulators have become more demanding and financial institutions have tried to use sticky tape to patch up traditional solutions that are no longer fit for purpose.

This results in high false positives, multiple tactical workarounds, high senior management overhead and burgeoning surveillance teams.

Driving Down the Cost of Surveillance.

Effective surveillance delivers the dual benefit of improved monitoring and cost reduction. For many organizations the adoption of one-fits-all solutions supported by spreadsheets, bespoke code changes and one-off interfaces has resulted in problems with data quality, data duplication and maintenance overhead. That in turn has led to untold risk in false negatives coupled with high operating costs in investigating false positives.





Most surveillance systems are, unfortunately, ineffective. What is required instead is an integrated architecture that combines full lifecycle data management and processing

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Effective surveillance, by being attuned to the specific client environment, reduces those costs in a number of ways.

- It enables organizations to monitor the specific risks of a financial institution within each business line.
- By using dynamic thresholds and parameters driven by calibration engines to optimize lookback periods, it can adjust to the changing characteristics of markets and individual risk tolerances being monitored rather than historical or system wide profiles.
- With access to consolidated data and filtering capabilities to easily navigate it supervisors can, for example, perform event-by-event analysis to view call transcripts, text messages, internal trades and counterparty codes that suggest cross-department collusion.

Full contextual analysis of all relevant factors in one place with the ability to do deep dives into just the relevant data makes investigation faster, more informed and more effective in enabling analysts focus on risk profile-based monitoring and identifying the riskiest actors.

What New Approach is Needed

Most surveillance systems are, unfortunately, ineffective. Part of the reason is that many organizations still have massively siloed systems because regulatory requirements were often addressed consecutively, and in isolation, in the order they were received rather than strategically as a service requirement. What is required instead is an integrated architecture that combines full lifecycle data management and processing:

- Data capture from multiple sources including exchanges, OTC, internal, social media, voice transcripts and other documents.
- Centralized data management for cleansing, normalization and transformation.
- A scalable and efficient architecture that can analyze the massive volumes of price discovery post-execution and communications data without farms of servers.
- A visualization layer for displaying and distributing the results to the right people at the right time.
- Fully extensible data model, analytics engines and output that can be configured to meet multiple regulatory requirements on one platform



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EFFECTIVENESS

A new approach is needed - one that combines data and analytics in holistic manner. A solution like KX for Surveillance.

The result is an enterprise platform that simultaneously addresses multiple regulatory and jurisdictional obligations while reducing the cost of regulatory change. Controlled and audited flexibility of data model, scenarios, models, alerts, behavioral profiling analytics and case management provides the perfect platform to meet the ever-changing regulatory requirements and the expectation of continuously improved monitoring. By being configurable to each bank's specific operating models, the platform is equally applicable to all lines of defence. Dynamic determination of parameters, sophisticated standard and bespoke algorithms and contextual analysis, together with comprehensive backtesting delivers significant productivity improvements.

Lines of defence need to address the reality that their current approaches are deficient, myopic and operationally expensive. They are deficient because they are limited in data, myopic because they are limited in scope and costly because they are inefficient and hard to maintain. The resolution to all three is consolidated surveillance based on broader data sets enabling wider multi-factorial analytics over a common platform that ensure completeness, accuracy and timeliness of results. Further cost savings accrue by eliminating duplicate interfaces, infrastructure, technology stacks, alert management and support teams making existing regulations less expensive to manage and new regulations easier to implement.





About KX

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KX has been at the forefront of data-driven solutions for the last 25 years. The core technology, specifically built to analyze and identify behavioural patterns across huge volumes of real time and retrospective data is used by every Tier 1 Bank in the world. The unique combination of leading edge technology and a large body of technical and capital markets expertise, makes KX the right partner to deliver a strategic consolidated platform for both current and future regulatory obligations together with continuous improvements in risk-based profiling and productivity.



Surveillance and regulatory clients include banks, regulators, exchanges, brokers, proprietary trading houses and investment firms globally.

KX for Surveillance

KX for Surveillance is the world's first integrated platform for consolidated multi-factorial detection and investigation of market abuse, financial crime and fraud. Delivered with a complete library of MAR, eComms and AML models, new models can be added and easily incorporated into the comprehensive alert, workflow and case management infrastructure with full contextualized, granular-level investigation tools.

Contact us



For a discussion on how KX could help your specific requirements, please contact surveillance@KX.com



Main Office Contacts

EMEA

Tel+ 44 (0)28 3025 2242

AMERICAS

Tel: + 1 (212) 447 6700

APAC

Tel: + 61 (0)2 9236 5700



For more information please contact: Contact us at surveillance@kx.com or visit www.kx.com

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