BUYER'S GUIDE: HOLISTIC SURVEILLANCE SYSTEMS

THE FUSION OF STRUCTURED DATA AND UNSTRUCTURED DATA SURVEILLANCE SYSTEMS

Until recently, sellside surveillance systems were siloed by business unit and, critically, were limited to the analysis of compromisingly restricted data universes. Systems either utilised structured data - such as trade data - or unstructured data - such as electronic communications (e-comms) and audio communications (a-comms). However, advances in technology have given birth to a new generation of surveillance systems that can incorporate multiple structured and unstructured datasets to determine previously undetectable correlations and patterns. This report looks at the functionality of four surveillance vendor solutions; one which can be used in a holistic surveillance operating model and three of which aggregate the analyses of other surveillance vendors with their own to present collectively — an umbrella operating model.

FACILITATING TECHNOLOGIES

01100 10110 11110 BIG DATA

Unstructured datasets, such as e-mails and instant messaging, can be ingested, processed, stored and analysed alongside structured data, such as trade data, to identify hidden correlations and patterns that could be concerning for the compliance team.

MACHINE LEARNING

The incorporation of machine learning algorithms into surveillance products has provoked a profound shift – from systems based on descriptive surveillance models to systems based on predictive surveillance models.

NATURAL LANGUAGE PROCESSING

NLP is the interpretation of human linguistics by a computer to enable contextualising information from e-comms and a-comms datasets to be analysed alongside trade data.

OPERATING MODELS

HOLISTIC

Surveillance teams utilise a system that enables them to monitor trading alongside the activities of traders across multiple communication channels. The contextualised analysis of trading allows surveillance teams to more accurately identify events that could compromise the bank.

UMBRELLA

Surveillance teams utilise a system that analyses either trade or e-comms/a-comms data and ingests the analysis of a complementary solution. The system incorporates the analysis of structured data and also the analysis of unstructured data, which are then presented collectively on one dashboard.

MULTIPLE-SPECIALIST

Surveillance teams use multiple systems, each based on technology that is optimised for one aspect of surveillance and which do not integrate with other systems. This operating model compels surveillance teams to choose the best-in-class solution for each data format and to review the analysis of each separately.

Technology advancements will continue to improve the ability for banks to identify compromising trading activity, as demonstrated by the vendors featured in this report, by facilitating more precise and comprehensive analysis of a wider data universe that includes a combined dataset of structured and unstructured data. Of the surveillance vendors analysed, all are taking advantage of some of the evolving technologies including big data technology, machine learning and NLP. These evolving technologies are creating an increasingly rich analytical capability which will reduce the number of false positives that surveillance systems generate and lead to a more effective surveillance system.

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