

**NICE** · ACTIMIZE

# **Markets Surveillance Enterprise Solution Overview**

Financial Markets Compliance Solutions

# Table of Contents

---

Executive Summary .....	3
Solution Overview .....	4
Coverage Areas.....	4
Key Features .....	4
Solution Benefits.....	5
Optional Features.....	5
Integrated Risk Case Management.....	8
Cross-Product / Cross-Market Analytics .....	10
Conclusion.....	12

*“As regulatory changes continue to point toward more transparent capital markets, the pressure for market participants to comply will become more crucial—especially in terms of coverage expansion for communication channels and asset classes...A reliable and robust trade compliance capability is viewed no longer as a nice-to-have or a regulatory mandate but instead as a competitive differentiator for both brokers and execution venues.”*

*Aite Group, December 2014*

*"Trade Surveillance and Monitoring Technology: Defining the Ecosystem" Report*

## Executive Summary

### A Global Challenge

Markets surveillance is a focal point of regulatory scrutiny. Regulators worldwide have become more aggressive in investigating and bringing enforcement actions, fines, and sanctions against firms with inadequate compliance procedures and systems. Individuals found responsible for market abuse and manipulation can be fined and/or go to jail, and compliance personnel themselves can be found negligent in supervising suspect trading activity within their firms.

With the overwhelming amount of regulatory and market change, and colossal amounts of trade and market data, financial institutions can be challenged to ensure that their compliance and supervisory controls facilitate the timely detection and prevention of trading behaviors prohibited by global regulations and guidelines. This includes SEC, CFTC, and FINRA regulations in the US (many enacted under the Dodd-Frank Act), the Market Abuse Directive, MiFID, and ESMA HFT Guidelines in Europe, as well as other national regulations in the Asia-Pacific region, Canada, South America, and Africa.

### Why NICE Actimize?

Markets Surveillance Enterprise (MSE) helps financial services institutions, broker/dealers and future commission merchants meet their regulatory obligations, avoid costly fines and preserve their reputation. The solution provides out of the box analytics that pinpoint trade abuse while generating few false positives along with comprehensive case management for efficient and effective investigations.

Together with Actimize’s fully integrated risk case management capabilities, depth of analytics and instrument coverage, this powerful integrated approach enables firms to not only have adequate controls in place to monitor for potential cross market trading but to also be able to document and demonstrate an adequate system of supervision to detect infringements before regulators and prevent illicit trading behavior.



**Celent 2016 Report**  
"Market Surveillance Vendors: Dawn of a New Era."



**TABB Group 2015 Research Note**  
"The Data Tsunami: Combating the Overwhelming Supply of GRC Data."



**Celent 2015 Report**  
"Market Surveillance Systems for the Sell Side and the Buy Side Slated for Growth."



**Group 2015 Impact Report**  
"Trade Surveillance and Monitoring Technology: An Expanding Landscape"

## Solution Overview

### Coverage Areas

MSE provides full asset class coverage:

- FX
- Equities
- Fixed income
- Futures
- Options
- Swaps/OTC derivatives

The solution monitors across full trade lifecycle with order and execution based models.

### Key Features

<p><b>Comprehensive Surveillance</b></p>	<ul style="list-style-type: none"> <li>• Broad, consistent global coverage via standard models for equities, fixed income, foreign exchange, swaps, futures and options</li> </ul>
<p><b>Best in Class Analytics</b></p>	<ul style="list-style-type: none"> <li>• Out-of-the-box detection scenarios provide superior analytics that have been vetted by top tier global clients, industry professionals, and our team of seasoned subject matter experts</li> <li>• More than 12 years' experience implementing OTC instrument market surveillance, including foreign exchange and swaps/OTC</li> </ul>
<p><b>Case Management</b></p>	<ul style="list-style-type: none"> <li>• MSE incorporates Risk Case Manager (RCM), a fully integrated, web-based case manager for efficient alert management, ad hoc investigation, and audit trail functionality</li> <li>• Improve organizational communication and minimize redundant efforts, while meeting regulatory books and records obligations</li> </ul>
<p><b>Advanced Market Visualization</b></p>	<ul style="list-style-type: none"> <li>• Effectively identify false positives and detect trading abuse by displaying alerts together with market activity and firm transactions</li> </ul>
<p><b>Policy Manager</b></p>	<ul style="list-style-type: none"> <li>• Creates rules to reduce false positives Supplement out-of-the box analytics with</li> </ul>

**Solution Benefits**

<p><b>Meet Regulatory Obligations</b></p>	<ul style="list-style-type: none"> <li>• Efficiently meet your regulatory requirements and demonstrate predictive, preventative compliance to regulators, clients and investors</li> <li>• Respond quickly to regulatory and legal inquiries</li> </ul>
<p><b>Save Compliance Analysts' Time</b></p>	<ul style="list-style-type: none"> <li>• Leverage communication, workflow and alert management capabilities to eliminate redundant activities and execute efficient investigations</li> </ul>
<p><b>Reduce the Cost of Compliance</b></p>	<ul style="list-style-type: none"> <li>• Reduce the number(s) of systems, and vendor management and integration complexity, by implementing a single, global compliance system for exchange and off-exchange traded instruments</li> </ul>
<p><b>Peer Recognition &amp; Expertise</b></p>	<ul style="list-style-type: none"> <li>• Actimize is known by regulators across the globe; our surveillance modules are recognized as the benchmark for industry best practices</li> <li>• NICE Actimize offers more than 12 years' tenure in OTC markets, and experience in implementing OTC instrument market surveillance, including foreign exchange and swaps/OTC</li> <li>• Actimize in-house experts include compliance professionals, trading strategists, traders, regulators, and technologists</li> </ul>

**Optional Features**

<p><b>Holistic Surveillance: Trade Reconstruction</b></p>	<ul style="list-style-type: none"> <li>• Enables firm to assemble actions related to a specific transaction by correlating orders, executions, voice and E-Communications related to the transaction. The solution gives analysts full workflow capabilities and the ability to export the underlying data of the reconstructed trade.</li> </ul>
<p><b>Cross-Product Cross-Venue Monitoring</b></p>	<ul style="list-style-type: none"> <li>• Cross market analytics detect orders/transactions on one venue designed to influence the price of the same instrument trading on another venue</li> <li>• Cross product analytics identifies when transactions involving an underlying instrument and its related instrument occur (i.e. common stock and its option).</li> </ul>

## Detection Scenarios

MSE’s out-of-the-box detection scenarios uncover activities that may indicate trading abuse or non-compliant behavior while generating few false positives. These detection scenarios have been vetted by leading financial institutions, our seasoned subject matter experts and proven in the market. Actimize technical account managers work with clients to reduced false positives by adjusting or tuning the thresholds and settings associated with an alert.

A full spectrum of detection scenarios are available for a broad range of instruments and asset classes including those traded on Swaps Execution Facilities (SEF), Multilateral Trading Facilities (MTF) and Organized Trading Facilities (OTF). Both the cash products and derivatives of an asset class are covered.

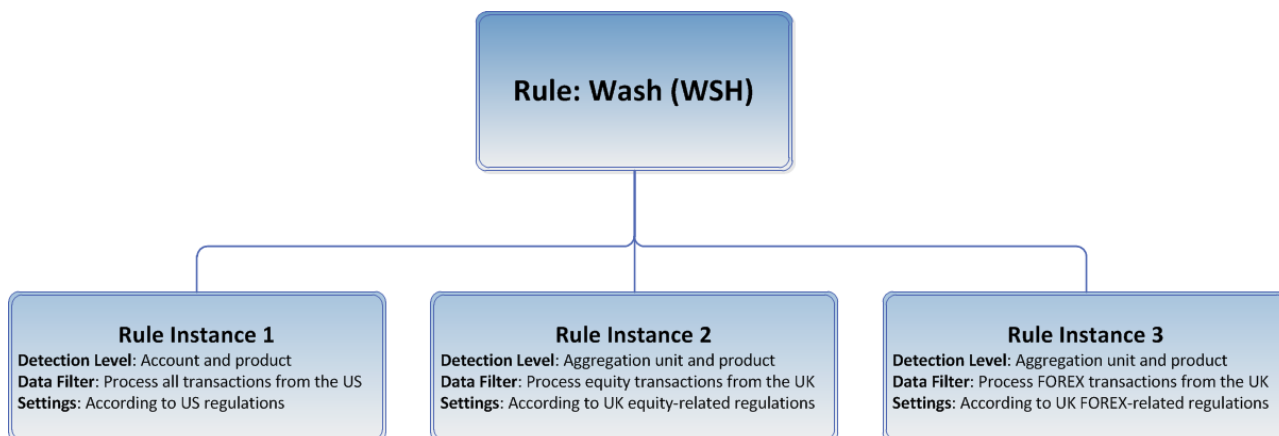
A sample of our detection scenarios include:

- Insider trading
- Ramping
- Spoofing
- Layering
- Quote stuffing
- Momentum ignition
- Wash trades and transactions
- Front running
- Marking the close/open
- Mark up/Mark down
- Off Market pricing/trades

Available detection scenarios vary by asset class. For a detailed view of our models and their availability please review a copy of our asset class specific algorithm lists

## Superior Configuration

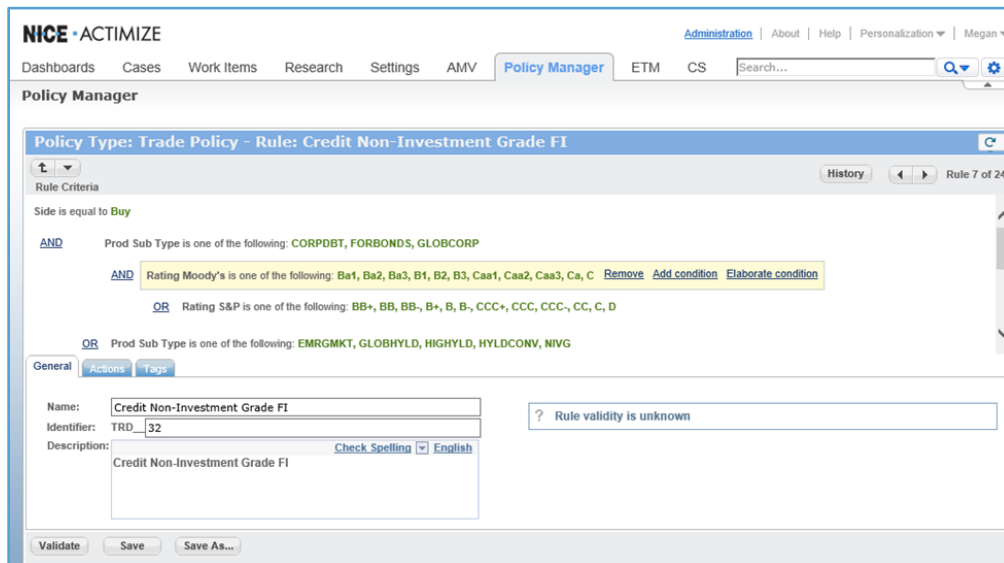
The design of our models enables them to be extended to additional business lines without having to deploy them and handle separate code for the same solution. Having a single model package to meet multiple business needs also simplifies model implementation and management of for.



*Detection Scenarios can be tailored to multiple instances*

## Policy Manager for Custom Rule Creation

Custom rules can be created using Policy Manager (Policy Manager filtering is included in the core Actimize Market Surveillance solution; custom rule creation is an optional add-on). Policy Manager for Custom Rule Creation enables users to configure rules to detect suspicious patterns of behavior, automatically perform actions for each transaction and route alerts to the appropriate individual for investigation.



Policy Manger

## Advanced Market Visualization

Advanced Market Visualization (AMV) enables analysts to effectively identify false positives and detect trading abuse by displaying alerts together with market activity and firm transactions. By graphically displaying alerts in the context of market price, volume, quote trends, market news and trading activity AMV stimulates insights vital to effective investigations. AMV capabilities include:

- Tick-by-tick replay of market spreads and prices relevant to the specific issue or alert
- On-click access to market replay visualization from alert details
- Market snapshot saved as part of alert audit trail along with firm transactions



Advanced Market Visualization

## Integrated Risk Case Management

MSE incorporates Risk Case Manager (RCM), a fully integrated, web-based case manager for efficient alert management, ad hoc investigation, and audit trail functionality. This improves organizational communication and minimizes redundant efforts, while meeting regulatory books and records obligations.

RCM also enables analysts the ability to bind multiple alerts together to create a case. This is especially useful in situations when suspicious issues are detected over an extended period of time. A case may go through a variety of status changes while it is being investigated and processed, depending upon completed processing steps or modifications by authorized users. The system also incorporates timeout and automatic escalation mechanisms to handle cases that have shown no progress or for which processing has not been initiated for an extended period of time.

Analysts can perform multiple actions related to a case, including:

- Attaching documents
- Reassigning cases to a specific user, group, or function/business unit
- Annotating and adding free-form text
- Printing details
- Adding manual alerts
- Collaborating with other analysts
- Closing/Resolving the case

## Compliance Workflow

RCM ensures adherence to organizational workflows by:

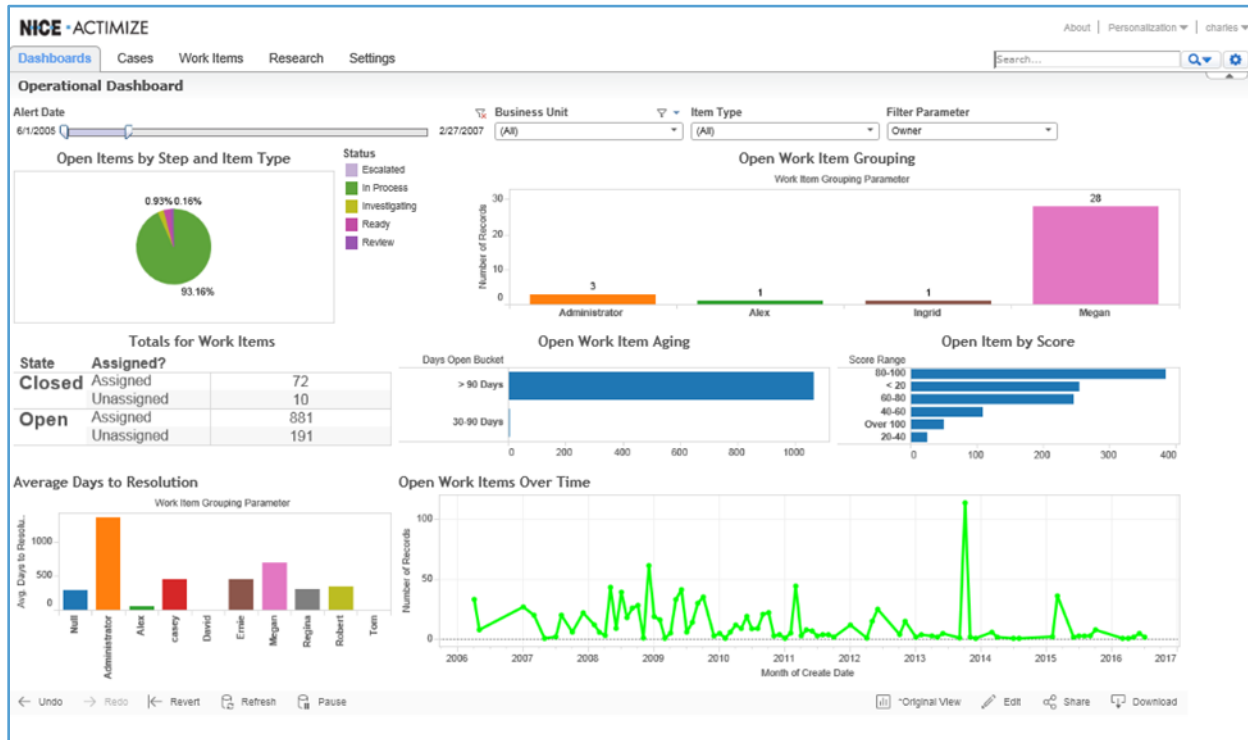
- Delivering scored and filtered alerts to authorized staff, including all relevant alert information
- Routing alerts according to the firm's procedures, tracking/auditing the alerts through resolution and providing evidence of principal review
- Providing internal reporting with options for attaching external files to alerts

Depending on their role and authority level, compliance managers may reassign, escalate, or process alerts from a personalized list or a common (departmental) queue. Further, RCM's review features enable users to modify the status and score of alerts, attach notes and other documentation, and determine resolution. All pertinent compliance and control management responsibilities are facilitated through RCM, including alert determination tracking (issue/non-issue), escalation, reporting, and audit trail creation. The integration offered by RCM provides a critical business advantage that most other surveillance systems do not offer.



## Management Dashboard

MSE allows analysts and managers to quickly assess the overall status of the program using dashboard functionality. Concise reports and statistics on work progress and alert status are available and produced either automatically or on demand. Based on these reports, compliance officers and management can take proactive steps such as the forced assignment or escalation of cases. These dashboards are not just a static snapshot of a firm's risk and compliance exposure but are also interactive.



Alert Dashboard

## Optional Services

### Holistic Surveillance

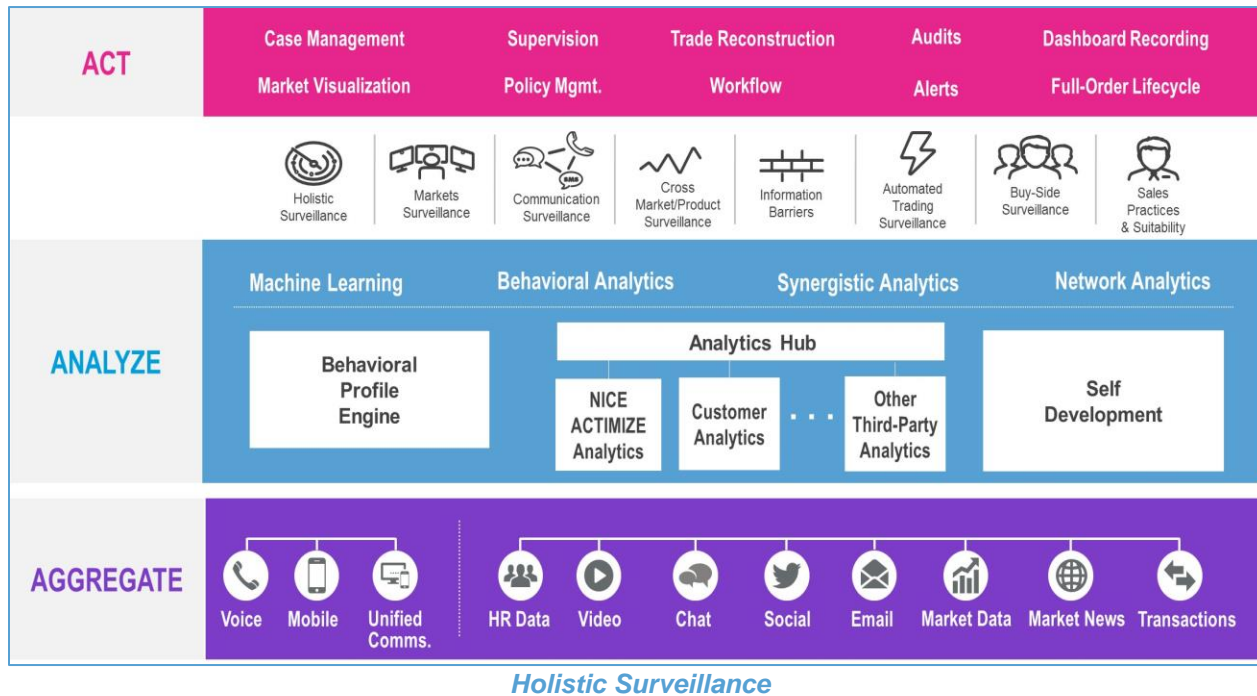
Holistic Surveillance is the analysis of structured data from orders, executions and the market, together with unstructured data from communications and news. This empowers firms to identify the intent of an action, reconstruct trades and more effectively detect market abuse. Using cross-channel analytics on speech, emails, chats, and other interaction channels, NICE Communication Surveillance analyzes the content of interactions. Actimize Markets Surveillance incorporates the results of the Communications analysis into its algorithms and advanced analytics using machine learning. The combined results are rated according to various risk management scores and presented to the user in the Actimize Risk Case Manager.

Firms rely on Holistic Surveillance:

- Detect the intent to manipulate the market as mandated in MAR
- More effectively detect collusion, benchmark manipulation and insider trading
- Comply with the Dodd-Frank requirement to reconstruct trades
- Prevent market abuse by detecting new, unknown patterns of suspicious behavior
- Reconstruct and package all actions around an order or trade with full vision and understanding
- Reduce data silos that increase the risk of regulatory violations

Available as a strategic add-on, the strength of Actimize’s Holistic Surveillance is our:

- Communication Surveillance is natively integrated with voice, electronic communication and social media systems
- Advanced analytics that identify new, unknown patterns of suspicious behavior
- The robustness of Actimize Risk Case Manager for investigation and workflow



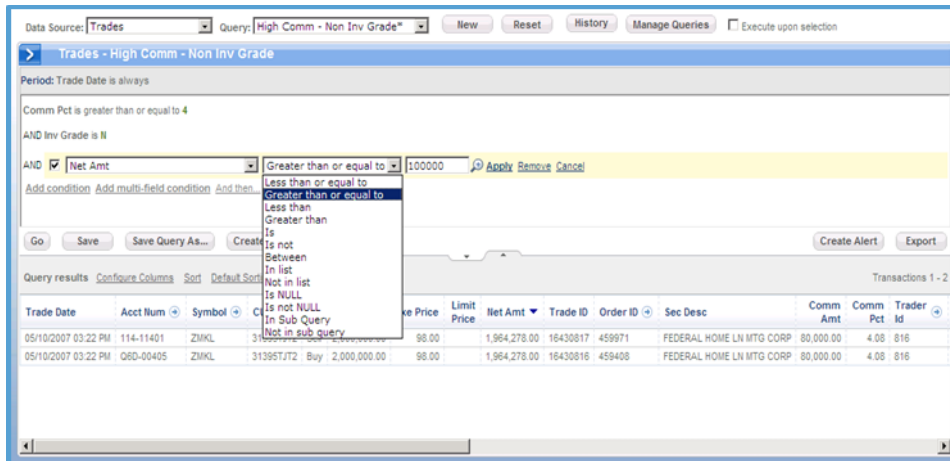
### Cross-Product / Cross-Market Analytics

Cross product visualization and cross market analytics help firms prevent sophisticated trade abuse that results in lost revenue, regulatory violations and reputational damage.

- Cross market analytics detect orders/transactions on one venue designed to influence the price of the same instrument trading on another venue
- Cross product visualization identifies when transactions of an underlying instrument and its related instrument (i.e. common stock and its option) occur. When suspicious behavior occurs, the analytics generate a single alert for the underlying instrument and identifies the related instrument that may be affected.

### DART

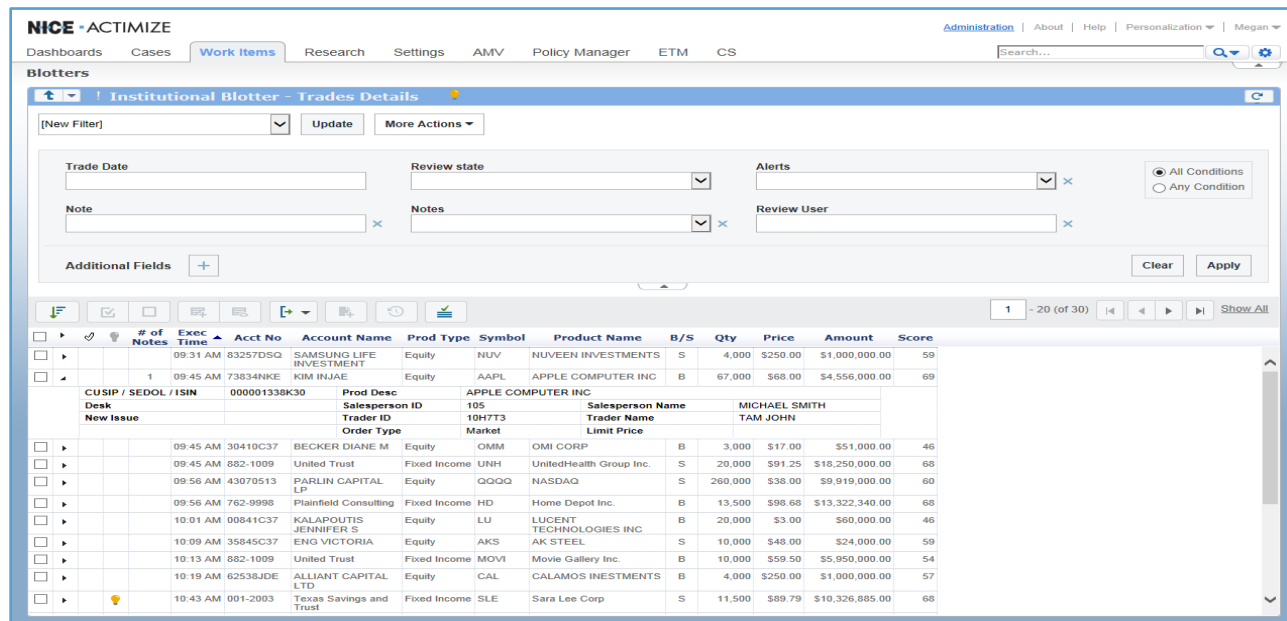
Gain insights that make investigations more effective by creating ad hoc reports using our Detection and Research Tool (DART, an optional add-on). Queries can be run against any attached data source. Capabilities include plain language queries, query by example, real-time instant feedback, and one-click query automation. Every query can then be shared with other investigators in a single click, improving knowledge share and insight across the entire organization.



DART

### Trade Blotter

Actimize Trade Blotter provides authorized supervisors and desk managers with access to trade blotters with a comprehensive list of appropriate trades. The Blotter presents flags for transactions with specific open alert types, and automatically takes the user to those alerts with just one click, allowing supervisors to electronically review and sign off on the daily trades for their business unit or trading desk, for example.



Trade Blotter

## Time to Value: Actimize Accelerators

### Solution Accelerators

- Out of the box coverage with full asset class and instrument coverage
- Each model scales to multiple asset classes
- Solution maturity and experience in the FICC space

### Data Accelerators

- Tested data requirements across all asset classes & instruments
- Operates with minimal data requirements
- Common data across solutions
- Extendable data model

### People Accelerators

- Over 12 years of experience deploying global enterprise compliance programs
- Over 100 Markets Surveillance deployments
- Over 130 years of Subject Matter Expert experience

## Conclusion

MSE provides a comprehensive package of surveillance models to enable global regulatory compliance across products and markets. The solution's proven analytic capabilities and flexible data architecture provide fully automated surveillance and end to end workflow management, investigation, audit, and reporting/dashboard capabilities. Financial institutions across the globe rely upon our proven surveillance capabilities, scalable platform, and notable industry expertise to supervise, detect, and prevent illicit trading behavior.

## About NICE Actimize

NICE Actimize is the largest and broadest provider of financial crime, risk and compliance solutions for regional and global financial institutions, as well as government regulators. Consistently ranked as number one in the space, NICE Actimize experts apply innovative technology to protect institutions and safeguard consumers and investors assets by identifying financial crime, preventing fraud and providing regulatory compliance. The company provides real-time, cross-channel fraud prevention, anti-money laundering detection, and trading surveillance solutions that address such concerns as payment fraud, cybercrime, sanctions monitoring, market abuse, customer due diligence and insider trading.

Copyright © 2016 Actimize Ltd. All rights reserved. No legal or accounting advice is provided hereunder and any discussion of regulatory compliance is purely illustrative.