



COMPLIANCE

PROTEGENT SURVEILLANCE

Empowering the Financial World
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FIS

Protegent Surveillance Overview

Efficient enterprise surveillance solutions to detect, document, and help remediate potential regulatory violations

Drawing on decades of industry experience, FIS' Protegent has maintained a commitment to sell-side retail brokerage firms to help with the mounting requirements mandated by regulatory bodies such as FINRA, SEC, NAIC and ESMA. More than ever before, firms need an effective enterprise surveillance solution to successfully navigate the increasing challenges of the regulatory environment.

As an intuitive, automated supervision system designed to detect, document and help remediate potential regulatory violations, Protegent Surveillance is the premier solution for surveillance execution on firms' trade, account and rep information according to regulatory and firm-defined guidelines.

With more than 200 configurable alerts in its library, Protegent Surveillance detects a broad range of issues, involving commissions, concentration, suitability, licensing, breakpoints, AML, and restricted holdings (among many others). Alert parameters and thresholds can be modified easily through the user interface to achieve focused results.

As regulatory agencies continue to issue new rules, Protegent incorporates alerts into its rules engine to help users mitigate internal and regulatory risk.

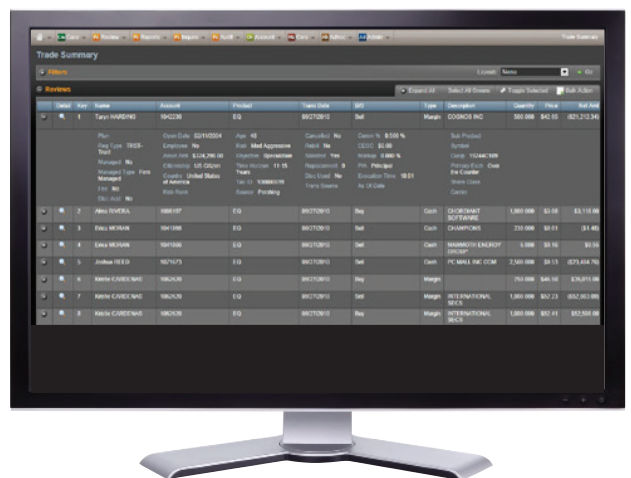
Products covered include:

- Equities
- Options
- Fixed income
- Mutual funds
- ETFs
- Structured products
- Futures and commodities
- Fixed and variable annuities
- Equity indexed annuities
- Term and whole life

The user dashboard provides a broad statistical overview of all critical alert trends and statuses.



FIS' Protegent Surveillance assesses transactions, account and rep data to detect and help remediate potential issues.



Integrated Compliance-centric Solutions

Protegent is committed to serving the unique needs of the compliance professional. FIS' Protegent Compliance Platform enables compliance users to manage surveillance and monitor tasks across functions using a robust set of features.

- **Case management** – Compliance processes can overlap whereby an issue detected from one perspective of a firm's business often has implications to another. The platform provides capabilities that support consistent workflow and collaboration across the organization on issues identified by the system. The system also supports capture of exhibits such as document attachments that helps to track reference information without the need to keep information outside the system. And because case management is fully integrated across the platform, workflow can include other components within the platform such as ad hoc reports and review results. Cases can be grouped for bulk tracking and resolution. Users can also manually create cases to track findings and tie disparate information together for centralized workflow management.
- **Ad Hoc reports** – Create and customize ad hoc reports that span the entire data model. Reports can be executed on demand by the user or scheduled for after-hours production.
- **Roles and user hierarchy** – Protegent Surveillance provides the ability to support multiple organization units across several jurisdictions with a single installation through its flexible hierarchy configuration.
- **Dashboard reporting** – The dashboard reporting feature leverages the ad hoc report generator to display any ad hoc report as a chart on a user dashboard. Dashboards can be created and shared with all system users across roles or be kept private for personal use. Users can view an unlimited set of dashboards and have full control over the number of charts displayed and their location on the screen by using drag-and-drop capability. Users are able to further configure dashboard charts by applying filtering capabilities that allow the user to narrow the information displayed on the chart.



Trade Review

The Trade Review module is designed to facilitate T+1 sales practice analysis. A supervisor can view trade blotters, reports, and other information on client profiles, transactions, accounts and reps in order to access suitability-based, ethical and quality-of-practice exceptions.

Trade Review provides sales practice analysis for convenient detection of potential violations of regulations and/or firm policy. Each trade is subjected to thorough analysis using the Protegent Surveillance rules library. Rules include configurable parameters set by the firm upon implementation. Rules can also be extended or customized due to the flexibility of Protegent's system design and its rules authoring tool. Custom alerts can also be developed on request. A score is assigned to the trade based on the triggered rule(s) that helps indicate the severity of the issue(s) identified with the trade.

Extensive filtering capability supports focused analysis. Flexibility to dynamically create many different views empowers users to focus on areas of concern and readily respond to regulatory inquiries.

Trade Review



Features and benefits

- Assists firms with mitigating regulatory risk by keeping pace with regulatory changes
- Improves supervisory procedures by identifying questionable transactions and providing a consistent review process
- Enhances operational efficiencies by aggregating compliance reviews and reducing time spent on daily reviews
- Provides consistent suitability reviews across all product types

Trade risk analysis

- Excessive commissions
- Concentration – security, low-priced security, high-yield bond
- Suitability – age, risk tolerance, time horizon
- Rep licensing checks
- Mutual fund breakpoints
- Restricted holdings

Trade analysis results

- Transaction analysis results are displayed on an electronic trade blotter that is sorted by risk level using a red-yellow-green scoring metaphor. The results can be further filtered and sorted on numerous data points such as status, client age, product type, commission amount, and trade date.
- The review and case management workflow within Protegent Surveillance provides the means to annotate, escalate, approve/resolve and memorialize trade-related issues and supervisory actions to help firms manage their risk.

Reports

Standard reports allow the user to analyze information over time and view reports on trends, patterns and violations at an aggregate level. Baseline reports help identify firm trends by alert category, alert severity and trader. These reports can be used to identify surveillance results based on resolution timeline and progress within firm-defined processes. A set of standard reports are available for online viewing and downloading to Excel, PDF, XML, or delimited text formats. Any standard ad hoc report can also be added to the user's dashboard.

Account Review

The Account Review module expands the capabilities of the core trading supervision solution by including daily account monitoring and a monthly risk ranking of the firm's accounts.

With the Account Review module, compliance personnel have the tools to automate analysis of account conditions – based on historical transaction activity, current positions, balances and client profiles – to measure and rank account risk beyond daily trading activity.

Periodic account review

Periodic account review provides analysis designed to detect potentially risky conditions on accounts – including analysis of patterns and trends. An account with an identified condition is flagged. The flag remains active until the condition clears or the analysis is repeated (based on the firm's configuration). The analysis interval is configurable to run on a daily, weekly, monthly, quarterly or annual basis.

Account risk ranking

Account risk ranking – executed on a monthly basis – extends the daily account review to a comprehensive view of an account. Risk factors are analyzed to calculate the account's overall risk score. This score highlights accounts that contain multiple small problems that individually do not appear to be significant but may become candidates for additional scrutiny when viewed in the aggregate. Account risk scores are compared and accounts are ranked among similar or peer group accounts according to their level of risk.

With Protegent Surveillance, firms can detect suspicious trading activity and address supervision and suitability requirements



Features and benefits

- Provides a level of analysis above individual transactions across the account
- Measures the convergence of account risk factors - highlighting high-risk accounts
- Detects patterns and trends in accounts
- Provides a composite view of all account exception conditions and assigns risk ranking scores to convey potential risk to the firm
- Expedites the review process for compliance personnel through workflow and issue tracking
- Provides targeted review, analysis and reporting through saved and shared filters
- Allows rule parameter thresholds to be configured according to the firm's needs

Managing and mitigating risk results

Account analysis results are displayed on an electronic account blotter sorted by risk level using a red-yellow-green scoring metaphor. The results can be filtered and sorted on numerous data points such as status, account balance, account loss, turnover and velocity.

The review and case management workflow within Protegent Surveillance provides the means to annotate, escalate, approve/resolve and memorialize account-related issues and supervisory actions to help firms manage their risk.

Account review analysis

- Managed account analysis
- Account concentrations: security, industry
- Market value loss
- Missing profile data
- Trading inactivity, active account analysis
- Commission velocity, turnover, gain/loss
- Cash distribution, liquidation, margin

Account Review



Rep Review

The Rep Review module provides a unique perspective by putting the registered representatives and their books of business as the focus of attention. The module consists of two components – each designed to enhance the firm's ability to understand and monitor its rep population.

Rep Rank

Rep Rank is an automated rules-based analysis module that extends beyond trade-by-trade or account-by-account review to a comprehensive view across reps' books of business.

The outcome is an assessment of registered representatives that can help identify existing patterns and potential risk trends across their books of business related to, for example, suitability, fraud, undue risk, sales practices and licensing. Rep Rank is executed on a monthly basis and provides an aggregate risk score that highlights high-risk reps. It uncovers multiple conditions that individually may not appear to be significant but when viewed in the aggregate may uncover potential risk exposure.

Reps are ranked against their peers within the firm to determine their relative and overall risk profile.

Features and benefits

- Provides a level of analysis above individual account and transactions across the entire book of business
- Measures the convergence of risk factors – highlighting high-risk reps
- Detects patterns and trends across the rep's entire book
- Provides a risk score and peer ranking of reps across the firm
- Maintains and tracks relevant rep information within a consolidated system

Rep Inquire

The Rep Inquire component facilitates the capture and storage of extended profile information on the registered representative providing a single, consolidated view into rep details such as:

- Addresses
- Telephone numbers
- Email addresses
- Rep codes
- Licenses and registrations
- Customer complaints
- Outside business activities
- Outside accounts
- Education
- Training and certifications

This data repository for rep-centric information allows users the ability to track information commonly stored in disparate systems. Powerful filtering capabilities enable users to pinpoint specific reps that meet user-defined criteria.

The module also provides a number of reports that analyze the rep's book by providing a breakdown of statistical cross sections of information. These reports provide powerful insight into how the rep manages his/her client base and the potential risks that might otherwise go unnoticed.

HIGHLIGHT REP BEHAVIOR

- Account concentrations – client, security, industry, product
- Market value loss
- Profiles issues – missing data, address duplication, frequent change
- Production mix
- Trading activity patterns
- Foreign accounts

Anti-Money Laundering

The Anti-Money Laundering (AML) module includes analysis to detect transaction patterns indicative of potentially suspicious activity in conjunction with a customer's profile (KYC) based on the USA Patriot Act and the Bank Secrecy Act guidelines. Exceptions identify circumstances warranting further due diligence as required under current AML rules and regulations. Workflow and issue tracking support documentation from inception to resolution.

With the AML module compliance and supervisory personnel have the tools to automate surveillance of accounts, positions, balances and transactions to identify suspicious activity.

Features and benefits

- Expedites the review process for compliance personnel by highlighting high-risk issues associated with money movement
- Provides a composite view of all exception conditions resulting from the AML analysis
- Detects patterns and trends in accounts as they relate to suspicious activity
- Analyzes account characteristics such as PO Box, net worth and income relative to activity
- Allows rule parameter thresholds to be modified to achieve focused analysis and results
- Provides review and case management workflow

AML conditions

- Increased activity
- Wash transactions
- Structuring
- Employee fraud
- Suspicious account activity
- Low-priced security frequency
- New account review
- Deposits relative to income and net worth

Analysis results

AML analysis results are presented in a summarized view and relevant supporting details are captured to provide historical reference. The account blotter provides details on the exceptions for the firm's accounts using the red-yellow-green scoring metaphor. The results can be filtered and sorted on numerous data points.

The review and case management workflow within Protegent Surveillance provides the means to annotate, escalate, approve/resolve and memorialize account-related issues and supervisory actions.

AML summary screen



AML detail screen



Portfolio Review

The Portfolio Review module provides a unique perspective by supporting risk analysis across groups of accounts—called “portfolios.” A Portfolio can represent an individual customer, a household, a trust, a group of managed accounts, or any other aggregation of accounts that is identified for analysis purposes. The module provides an essential framework to assist the firm in meeting its customer due diligence requirements. The module consists of two components – each designed to support risk analysis from a perspective that is different from the other modules.

Periodic portfolio review

Periodic portfolio review provides analysis designed to identify risk in the context of the entire customer relationship or even book of business.

The strength of this approach is a more wholistic risk analysis that can include, for example, industry concentration of an entire portfolio of accounts for a customer—as opposed to the view of a single account.

A portfolio with an identified condition is flagged. The flag remains active until the condition clears of the analysis is repeated. The analysis interval is configurable to run on a daily, weekly, monthly, quarterly or annual basis.

Features and benefits

- Can be used as a key customer due diligence tool to perform automated customer risk profiling
- Provides a risk score and peer ranking of portfolios across the firm
- Provides a level of analysis beyond individual account and transactions across an entire portfolio of accounts
- Detects points of risk in the aggregate that would otherwise not be visible
- Provides the ability for the firm to analyze any cross-section of accounts to flexibly meet the needs of the firm from a risk analysis perspective

Portfolio risk ranking

Portfolio risk ranking – executed on a monthly basis – extends the daily portfolio review to a comprehensive view of a portfolio of accounts. Risk factors are analyzed to calculate the portfolio’s overall risk score.

Portfolio Rank provides a risk score that highlights high-risk portfolios based on a broad array of data points. Like Account Rank it uncovers multiple conditions that individually may not appear to be significant but when viewed in the aggregate may identify potential risk exposure of an entire portfolio of accounts.

Portfolios are ranked among the population of all portfolios to determine their relative and overall risk profile.

Portfolio review analysis

- Portfolio risk
- Portfolio concentrations: security, industry
- Asset allocation
- Market value loss
- Frequent profile change
- Turnover
- Commission Velocity

PORTFOLIO RISK PROFILING

- Firm-defined aggregation of accounts
- Data points may include customer age, income, net worth, occupation and other risk attributes
- Other risk data points can be added and incorporated into the risk scoring algorithm
- Data points can be weighted based on the firm’s preferences
- Portfolios are ranked on a peer-to-peer basis

Audit

The Audit module provides senior management and authorized supervisors the tools they need to perform remote field audits and sales practice reviews across the organization.

It provides a consolidated view of firm-wide client positions, balances, transactions, and activity statistics – aggregated across the organization hierarchy.

This information allows sales managers to identify potential sales practice issues, perform peer reviews, execute remote field audits, identify revenue opportunities, spot high-risk areas and detect patterns and trends to support coach-and-counsel sessions.

From one consolidated location current account positions and balances, historical transactions and other statistical data are aggregated and viewable at all levels of the firm's defined organizational hierarchy and at the individual account level.

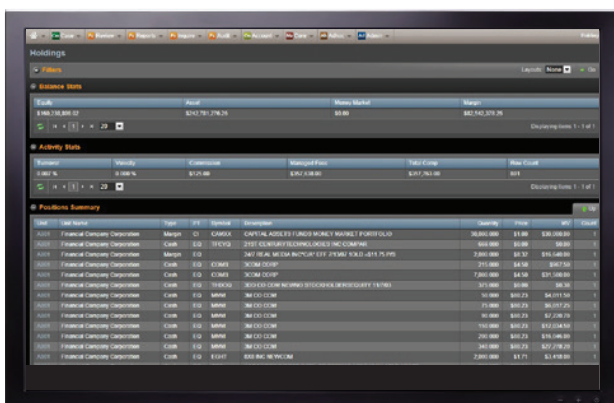
This comprehensive yet delineated presentation of data allows supervisory personnel such as branch managers and regional directors to identify potential problem areas and engage in coach-and-counsel sessions with registered representatives. It supports management's focus on overall performance of reps, branches and regions.

Protegent Surveillance's auditing features also greatly increase the firm's ability to monitor and improve compliance, supervision and risk management throughout the organization.

Features and benefits

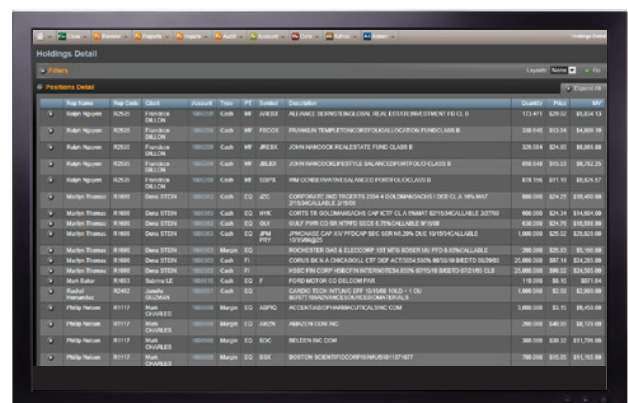
- Enables remote field auditing and risk management
- Expedites best practice reviews
- Helps create a culture of compliance
- Significantly reduces time involved in conducting full sales practice review
- Improves supervisors' ability to recognize potential problems and identify the need for coach-and-counsel sessions
- Provides a consolidated view at the individual account level and at each level of the firm's defined hierarchy
- Offers drill up and down capabilities across the hierarchical structure of the firm
- Allows ad hoc views of the data at any level of the hierarchy
- Supports extensive sorting and filtering options
- Presents patterns and trends across the firm as they relate to transaction activity and positions

Audit holdings



Client	Rep Name	Type	Asset	Liability	Net Worth	MTB	Open
000000	Financial Company Corporation	Margin	01	CASH	CASH	30,000.00	0.00
000000	Financial Company Corporation	Margin	02	BOND	BOND	10,000.00	0.00
000000	Financial Company Corporation	Margin	03	STOCK	STOCK	20,000.00	0.00
000000	Financial Company Corporation	Margin	04	OPTION	OPTION	5,000.00	0.00
000000	Financial Company Corporation	Margin	05	COMMODITY	COMMODITY	1,000.00	0.00
000000	Financial Company Corporation	Margin	06	CRYPTO	CRYPTO	500.00	0.00
000000	Financial Company Corporation	Margin	07	REAL ESTATE	REAL ESTATE	10,000.00	0.00
000000	Financial Company Corporation	Margin	08	ART	ART	5,000.00	0.00
000000	Financial Company Corporation	Margin	09	COLLECTIBLE	COLLECTIBLE	1,000.00	0.00
000000	Financial Company Corporation	Margin	10	OTHER	OTHER	1,000.00	0.00
000000	Financial Company Corporation	Margin	11	CASH	CASH	30,000.00	0.00
000000	Financial Company Corporation	Margin	12	BOND	BOND	10,000.00	0.00
000000	Financial Company Corporation	Margin	13	STOCK	STOCK	20,000.00	0.00
000000	Financial Company Corporation	Margin	14	OPTION	OPTION	5,000.00	0.00
000000	Financial Company Corporation	Margin	15	COMMODITY	COMMODITY	1,000.00	0.00
000000	Financial Company Corporation	Margin	16	CRYPTO	CRYPTO	500.00	0.00
000000	Financial Company Corporation	Margin	17	REAL ESTATE	REAL ESTATE	10,000.00	0.00
000000	Financial Company Corporation	Margin	18	ART	ART	5,000.00	0.00
000000	Financial Company Corporation	Margin	19	COLLECTIBLE	COLLECTIBLE	1,000.00	0.00
000000	Financial Company Corporation	Margin	20	OTHER	OTHER	1,000.00	0.00

Audit holding detail



Rep Name	Rep Code	Asset	Type	PE	Symbol	Description	Quantity	Price	Value
000000	Financial Company Corporation	Margin	01	CASH	CASH	CASH	30,000.00	0.00	30,000.00
000000	Financial Company Corporation	Margin	02	BOND	BOND	BOND	10,000.00	0.00	10,000.00
000000	Financial Company Corporation	Margin	03	STOCK	STOCK	STOCK	20,000.00	0.00	20,000.00
000000	Financial Company Corporation	Margin	04	OPTION	OPTION	OPTION	5,000.00	0.00	5,000.00
000000	Financial Company Corporation	Margin	05	COMMODITY	COMMODITY	COMMODITY	1,000.00	0.00	1,000.00
000000	Financial Company Corporation	Margin	06	CRYPTO	CRYPTO	CRYPTO	500.00	0.00	500.00
000000	Financial Company Corporation	Margin	07	REAL ESTATE	REAL ESTATE	REAL ESTATE	10,000.00	0.00	10,000.00
000000	Financial Company Corporation	Margin	08	ART	ART	ART	5,000.00	0.00	5,000.00
000000	Financial Company Corporation	Margin	09	COLLECTIBLE	COLLECTIBLE	COLLECTIBLE	1,000.00	0.00	1,000.00
000000	Financial Company Corporation	Margin	10	OTHER	OTHER	OTHER	1,000.00	0.00	1,000.00
000000	Financial Company Corporation	Margin	11	CASH	CASH	CASH	30,000.00	0.00	30,000.00
000000	Financial Company Corporation	Margin	12	BOND	BOND	BOND	10,000.00	0.00	10,000.00
000000	Financial Company Corporation	Margin	13	STOCK	STOCK	STOCK	20,000.00	0.00	20,000.00
000000	Financial Company Corporation	Margin	14	OPTION	OPTION	OPTION	5,000.00	0.00	5,000.00
000000	Financial Company Corporation	Margin	15	COMMODITY	COMMODITY	COMMODITY	1,000.00	0.00	1,000.00
000000	Financial Company Corporation	Margin	16	CRYPTO	CRYPTO	CRYPTO	500.00	0.00	500.00
000000	Financial Company Corporation	Margin	17	REAL ESTATE	REAL ESTATE	REAL ESTATE	10,000.00	0.00	10,000.00
000000	Financial Company Corporation	Margin	18	ART	ART	ART	5,000.00	0.00	5,000.00
000000	Financial Company Corporation	Margin	19	COLLECTIBLE	COLLECTIBLE	COLLECTIBLE	1,000.00	0.00	1,000.00
000000	Financial Company Corporation	Margin	20	OTHER	OTHER	OTHER	1,000.00	0.00	1,000.00

Increased visibility to manage risk

Account positions and transaction activity are aggregated and displayed based on the firm's hierarchical structure.

The information can be further filtered and sorted on numerous data points including market value, commission, price, etc. Drilling up and down the hierarchy enables detection of patterns and trends that may otherwise go unnoticed.

All the information needed to conduct full sales practice review and transaction review is in one place - so users don't have to access other systems or reference other documentation.

Risk management and firm exposure to high-profile securities and accounts can be supported through the aggregated data views.

Product Inquire

Product Inquire provides a view into key attributes of the products that are involved in trade reviews. Many of these attributes are referenced in the business rules that comprise trade alert logic. Therefore, visibility into this information is helpful in understanding why certain alerts triggered.

In addition to product visibility, Product Inquire provides mechanisms by which alerts may identify trades in products that are deemed risky or complex. These triggered alerts are displayed alongside other alerts that can be evaluated as part of the trade review workflow.

The alerts can utilize a wide variety of firm-provided and market data attributes that are used to profile products according to risk and complexity measures. These capabilities help firms to comply with corresponding FINRA guidelines in relation to heightened supervision of risky and complex products.

Features and benefits

- Provides greater visibility of product information available to entitled users
- Enables improved analysis of triggered alerts
- Supports identification of trade activity in risky and complex products

Product Inquire



FIS' Trading Solutions

All FIS solutions are built on the foundation of three basic principles, aimed to help businesses make money, save money, and protect their firm. While Protegent's suite of compliance solutions help firms protect their firms' assets, customers, employees, and reputation, FIS' suite of trading products and services are engineered to provide more than just protection. Designed with a common element at their core – the customer – FIS' trading solutions help them achieve increased performance, low latency and execution across multiple platforms, instruments and geographies.

A neutral trading environment is an effective way to maximize value by delivering top execution performance to customers, especially in complex industry conditions. By supporting the entire lifecycle of a trade, FIS' trading products and services are positioned to help customers obtain peak performance in today's volatile and uncertain markets.

As a full service provider, you can rely on FIS to provide a single point of accountability. We focus on supporting the trade and helping you achieve cost reductions and additional revenue opportunities through FIS' bundled trading solutions.

About FIS

FIS is a global leader in financial services technology, with a focus on retail and institutional banking, payments, asset and wealth management, risk and compliance, consulting and outsourcing solutions. Through the depth and breadth of our solutions portfolio, global capabilities and domain expertise, FIS serves more than 20,000 clients in over 130 countries. Headquartered in Jacksonville, Florida, FIS employs more than 55,000 people worldwide and holds leadership positions in payment processing, financial software and banking solutions. Providing software, services and outsourcing of the technology that empowers the financial world, FIS is a Fortune 500 company and is a member of Standard & Poor's 500® Index. For more information about FIS, visit **www.fisglobal.com**



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