

# DATA INTEGRITY

The Crux of Compliance and Risk Management

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# EXECUTIVE SUMMARY

Your financial services firm uses, captures, and stores significant amounts of data every day. Although it may not be something you've spent much time thinking about, it's more critical than ever for firm leaders to be able to rely on the data they're charged with overseeing. If that data includes inconsistencies or inaccuracies, downstream decisions can be flawed.

**At a time when regulatory demands and the onus of personal responsibility are increasing, there is no room for error.**

This paper will define what data integrity is, explore benefits firms can realize from being proactive about the quality of their data, identify signs that can indicate your firm has data integrity issues, and introduce some of the risks inherent in inefficient manual processes or systems that don't adequately address data integrity. This paper will also identify technology advances and processes that support data integrity, help mitigate firms' risks, and enhance compliance efforts.

## DATA INTEGRITY WITHIN COMPLIANCE AND RISK MANAGEMENT

### THE CORE OF THE MATTER: DEFINING DATA INTEGRITY

**Put simply, data integrity means having data your firm can rely on.**

Data integrity deals with the completeness, accuracy, uniqueness, timeliness and consistency of information. Data integrity not only requires a deep understanding of the data you need to support business activities, but also an understanding of what that data represents, and the importance of maintaining relationships between data from various sources.

Sustaining data integrity demands constant vigilance. Frankly, it's virtually impossible without sophisticated technology.

### BENEFITS OF HIGH DATA INTEGRITY

In the realm of effective compliance and risk management for financial services firms, data integrity is arguably the most critical component, providing a bedrock of support for dependable compliance oversight. It can also help your firm understand employee processes and identify latent activities that could place the business at

risk. Put simply, reputations, client confidence and long-term financial viability can depend on it.

Improving data integrity gives your compliance team a single “golden” source of data they can rely on for decision-making. It also gives your team the ability to perform advanced forensic analysis, enables dynamic risk surveillance, and builds confidence in the accuracy of reports.

## WHY DATA INTEGRITY MATTERS: IMPACT OF POOR DATA INTEGRITY ON THE COMPLIANCE DEPARTMENT

**A Compliance Officer never wants to hear that “the data is only 60 percent complete”—or worse, that the firm’s doing a great job of supervising lots of incorrect data.**

Regardless of how skilled or experienced your compliance staffers are, their work is limited by the tools and knowledge at their disposal. Even well-intentioned compliance work can miss the mark because of process inefficiencies and discrepancies in the data it depends on.

### Signs of Process Inefficiencies:

- » excessive false positives and exception alerts
- » need to “scrub” and manipulate data and reports manually to prepare them for review
- » conflicting data from different systems or reporting features

Worse, these inefficiencies introduce the risk of human error in the reporting process, further compounding the problem.

Data integrity issues can indicate that your compliance program is ineffective. That could raise red flags with employees, senior managers, and regulators that there may be other areas of ineffectiveness in your firm.

## SYMPTOMS OF DATA INTEGRITY ISSUES

Most data integrity issues fall into one or more of the following categories:

### False Negatives

If your process is not catching violations, it means your program is not working.

### False Positives

When your process makes violations out of benign transactions, those false positives create additional work for your compliance team.

### Inaccurate Reporting

Reporting is a key element of the code of ethics and personal trade regulations and provides an easy way for regulators to spot potential issues.

### System Inefficiencies

Inefficient processes create additional, unnecessary records, violations, and activities. Over time, the cumulative noise from unnecessary data can become too onerous to be effective.

### Wasted Human Efforts

Routine compliance activities can end up taking far more time than should be required.

## POOR DATA INTEGRITY IMPACTS EMPLOYEES AT ALL LEVELS OF THE COMPANY

A significant component of any firm's compliance program comes from employees themselves. Whether its employees' personal trading, outside business activities, gifts and entertainment, political contributions, or other monitored activities, employees are often the source and the verification of the data your compliance team reviews. Employee risk is extremely difficult to manage, and a firm's ability to mitigate this risk is entirely dependent on the quality and completeness of the data within its compliance systems.

Many employees may not be aware of the connection between their personal business and the firm's, so compliance requirements seem onerous from the start. Employees (understandably) want to spend as little time as possible completing compliance requirements so they can get back to their work.

Unfortunately, employees who are in a hurry to meet compliance requirements might simply

certify incorrect data rather than correcting it. This means the system is maintaining bad data and creates inaccurate certifications and reports.

Poor data integrity also means employees must spend more time in the system, often leading to a frustrating user experience that can decrease employee's regard for compliance and make them less likely to comply in the future.

Bad data can also impact your firm's senior leaders. Besides their own personal frustrations with incorrect data as part of your general employee base, senior managers may also receive complaints from employees about the system and compliance in general. Worse, there's the chance that bad data makes it into reports or updates to the firm's Board. Ultimately, bad data weakens trust in compliance and erodes a culture of compliance.

**When your firm makes data integrity a priority, employees, clients, and regulators will have greater confidence in the firm's culture of compliance.**

# DATA INTEGRITY WITHIN EMPLOYEE TRADE MONITORING PROGRAMS

Personal trading and code of ethics are somewhat unique aspects of your compliance program because they apply to everyone at your firm. While data integrity issues can affect any aspect of your firm's compliance program, they can have a significant impact on employee trade monitoring efforts.

## REGULATORY CONSIDERATIONS

As you evaluate the integrity of your firm's employee trade data and its impact on your compliance department, employee base, and senior management, consider also your potential regulatory risk exposure.

Most regulators take a risk-based approach to examinations and have developed tools to review data anomalies. Using improved technologies, regulators are better-prepared to spot mismatches or discrepancies between their reports and yours, putting your firm at potential regulatory risk.

Elements of your compliance program with poor reporting will be more closely scrutinized. This closer examination may also reveal other results of bad data: false negatives, false positives, and inefficient systems.

## DATA INTEGRITY CONSIDERATIONS FOR EMPLOYEE MONITORING

### External Regulations

- Government Agencies
- Industry Watchdogs

### Internal Rules

- Code of Ethics
- Trading Policies
- Restricted and Watch Lists
- Blackout Terms
- Credential Requirements

### Real-Time Brokerage & Market Data

- Direct Feeds from the brokers where your employees trade
- Daily Updates for millions of instruments traded around the world

### Employee Data

- Trade Clearance Status
- Certification Status
- Attestations Status
- Trade History
- Gifts Given or Received
- Outside Affiliations / Board Memberships
- Political Contributions
- Historical Trading Restrictions
- Other \_\_\_\_\_

## DATA INTEGRITY RED FLAGS IN EMPLOYEE TRADE MONITORING

The following red flags may indicate there are potential data integrity problems in your employee trade monitoring system:

- » Frequent creation of custom securities for routine trades
- » Non-volitional transactions allow inaccurate data into your system from your broker feed process
- » Inability to link trades in the same company across markets and security types

These issues can stem from erroneous custom securities, weak issuer-to-issuer matching, and inconsistent security matching by broker. In turn, that unpredictability can lead to both false negatives and false positives.

Poor data integrity can also mean your firm is not correctly applying common trade rules such as restricted (black) list, watch (gray) list, blackout (firm trades), holding period (short swing), market cap, and industry (sector) rules.

If you use any of these rules, bad data may mean you are at risk of missing violations. Basic trade- to-request matching is also unpredictable with bad security master data and poor processes around broker feeds.

## ENSURING DATA INTEGRITY: ADVANCED TECHNOLOGY IS NEEDED

So how do you go about ensuring data integrity? For starters, data-driven compliance must include an effective mechanism to identify, integrate and police the relevant data points in a business' operating universe.

The solution must encapsulate all the activities, transaction scenarios, codes of conduct and relationships required for the entire business to function.

“**Today's high-speed markets require that broker-dealers and investment advisers manage the convergence of technology and compliance.**”

SEC Director of Division of Enforcement

Advanced technology is essential for ensuring the quality and reliability of the data your firm depends on. Only data that is effectively cleansed of misleading discrepancies can achieve the highest degree of integrity. An investment in technology with this scope of capabilities shows regulators that the firm's ethical commitment and compliance processes are equally strong and aligned.

Unless this foundational level of data integrity is ensured, even the best attempts at compliance and risk management will produce everything from false positives to painful oversights.

Errors like these should be detected and corrected before examiners ever have the chance to catch them.

## NO COMPANY IS IMMUNE TO THE EFFECTS OF UNRELIABLE DATA:

- » Inefficient surveillance
- » Semantics difficulties
- » Policy breaches
- » Cross-referencing failures
- » Reputational risk
- » Costly fines

Without the clarity that automated technology can provide, it's impossible for a firm to know if information is complete, and whether the data will produce valid outputs – reports, pre-clearances, risk behavior analysis and more.

“**Data quality remains the greatest barrier to successful risk technology implementations.**”

Global Risk IT Expenditure in Financial Services, Chartis Research



# THE COMPLYSCI PLATFORM MONITORS EMPLOYEES WITH HIGHEST DATA INTEGRITY

Your firm needs to be able to rely on the completeness, accuracy, uniqueness, timeliness and consistency of the data it captures, uses and retains. Advanced technology offers the best way to help your firm mitigate its risk of data integrity issues and effectuate compliance.

## ComplySci can help.

We understand the firms we work with need a holistic solution that doesn't include room for data errors. Our 12-year track record in the financial services industry means we bring deep subject matter expertise and peace of mind to the more than 1,000 financial services clients we serve.

The ComplySci Platform uses a proprietary Risk Data Engine designed to automate and power the aggregation, cleansing, normalization and enrichment of vast quantities of data from a broad spectrum of sources – both internal and external.

No other service provider incorporates the same level of processing and controls around the data received from disparate sources.

“A large number of the firms that moved to our compliance and risk platform from legacy systems had significant data integrity issues with their current technology, including missing and inaccurate data.”

Charles Steerman, VP Customer Success, ComplySci

## DATA AGGREGATION

Employee personal trading is one of the most important – and most challenging areas to get data integrity right. ComplySci has established direct broker feeds from more than 175 brokerage houses and clearing firms. We also have access to hundreds of additional brokers through relationships with custodians and clearing houses, all working in conjunction with a standard security master.

Supervisors can monitor more of their employees' trading activity across a wider array of global brokers using ComplySci. This may mean fewer paper statements, more designated broker options for employees, and more uniform treatment of employee trading across Brokers.

In addition, the ComplySci Platform gives firms the ability to integrate and normalize data to and from internal or external sources, including proprietary systems such as order management systems, CRM systems, business intelligence tools, and more.

## DATA CLEANSING, NORMALIZATION AND ENRICHMENT

Of course, with this volume of information coming into the system, it is critical that data is complete, timely, consistent and accurate.

**The stakes are too high for data to be missing or wrong. “Bad” data can result in time-wasting false positives or in potential issues not being identified or addressed.**

The ComplySci Platform normalizes all of the external data received, and then enriches that information with data from our comprehensive and sophisticated security master so clients can perform detailed analytics, rule checking, and reporting.

Our security master records contain issuer identification data, so the system can link or flag activities in the same issuer. For example, the system can identify instances of an employee and client trading in the same company but through different securities.

The security master is further enhanced by proprietary algorithms to ensure only valid data enters the system. These internal safeguards and checks built into the ComplySci Platform ensure that identifiers such as ticker symbols and CUSIPs are matched with existing records in the security master.

We utilize matching logic and test trades against preclearance processes, post-trade to identify any issues with changed trades or restrictions identified during the approval and execution processes. Equally imperative to the data verification process is understanding the exceptions so it is clear what is missing and what is required to resolve any integrity issues. Any potential exceptions are identified and addressed promptly.

## DEDICATED DATA OPERATIONS AND CLIENT SUCCESS TEAMS

ComplySci’s clients also benefit from our dedicated Data Operations Team, which provides end-to-end operational processes and controls. This team is responsible for ensuring data feeds come in, are complete, and that the data is up-to-date. For example, if there are issues with broker feeds, the ComplySci team works to resolve those issues.

The Data Operations team also leverages the security master to compare apples to apples—and to make sure we’re covering all of the apples.

**We are committed to ensuring our clients are receiving data they can rely on.**

Our Client Success Team partners with each client to ensure quality of integration and data accuracy by confirming client accounts are feeding properly, that the ComplySci Platform is communicating effectively with the client’s order management system, and that restricted lists are implemented correctly.

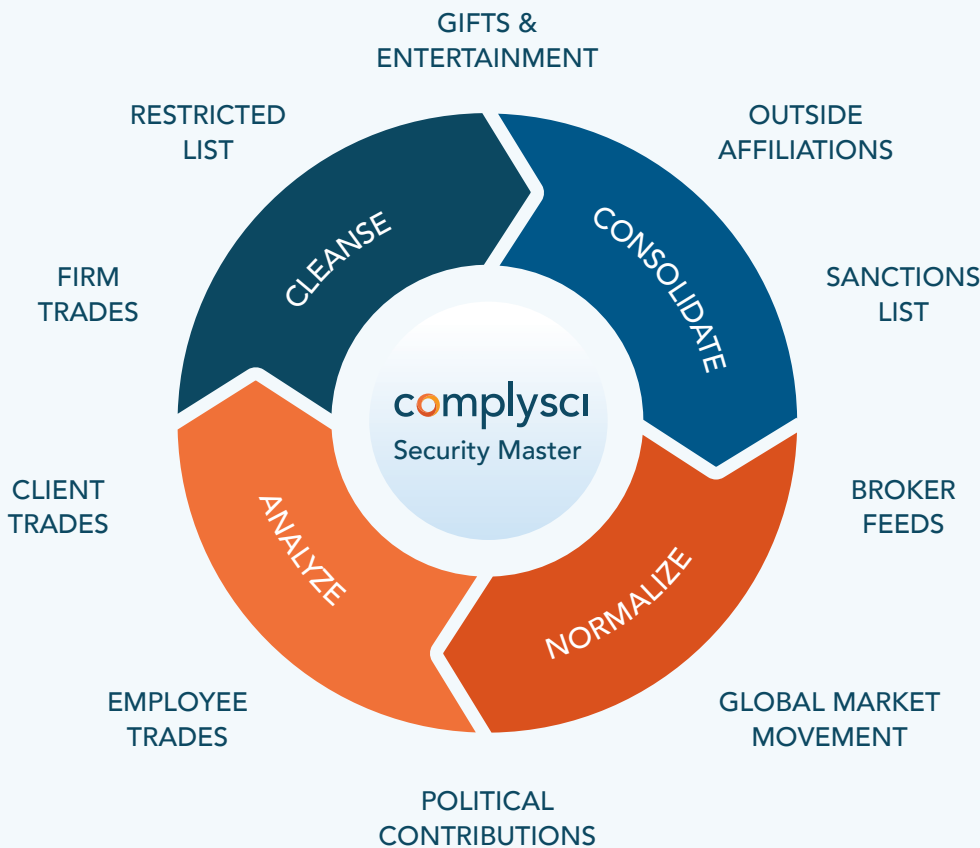
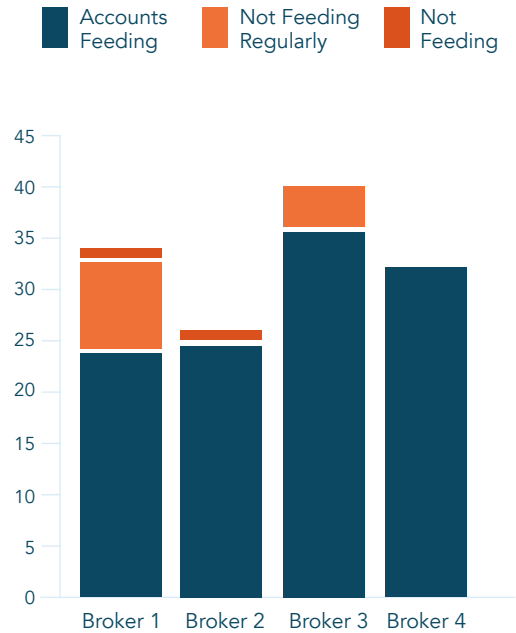
## THE CONTROLS YOUR FIRM NEEDS

Firms using the ComplySci Platform can also view a graphical representation of the health of their electronic broker feeds, identifying which employee accounts are – or are not – feeding into the system as intended. This gives firms both the transparency and control they need to monitor activity effectively.

These controls and safeguards mean clients can define robust trade rules with confidence, knowing that the data coming in and out of the ComplySci Platform is accurate and complete.

Because we understand that your employees’ trading activity doesn’t take place in a vacuum, the ComplySci Platform is designed to ensure trade data is also reviewed in the larger context of an employee’s other compliance-related activities.

## EXAMPLE OF BROKER FEED STATUS



## THE COMPLYSCI PLATFORM

Companies rely on ComplySci to maintain the highest standards of data integrity.

# | THE BOTTOM LINE

Compliance Officers have a corporate responsibility to ensure that the firm's compliance system is capable of protecting the firm, its employees and its clients from bad and incomplete data.

Compliance systems must have the operational capability to bring together distinct but inter-related data from vast numbers of different sources, and to connect all the elements correctly.

The right technology will provide the data integrity that is absolutely essential for reliable reporting, risk assessment, rules enforcement and more. At the very least, a system that automatically ensures this level of data integrity can legitimately demonstrate and promote a culture of compliance.



ComplySci is a leading provider of technology solutions that help compliance organizations identify, monitor, manage and report on conflicts of interest arising from employee activities, including personal trading, gifts and entertainment, political contributions, outside business affiliations, and other code of ethics violations. Founded in 2003 by early pioneers in the development of automated compliance management solutions, ComplySci is now trusted by over 1,100 customers, including some of the world's largest financial institutions. Compliance Officers rely on ComplySci's scalable and sophisticated platform to stay ahead of risk.

**To learn more about ComplySci,  
visit us at [complysci.com](https://complysci.com)**