What does SAS® Fraud Framework for Insurance do?
SAS Fraud Framework for Insurance allows you to detect, prevent and manage both opportunistic and professional fraud across multiple lines of business. It includes components for fraud detection, alert management and case management, along with the ability to uncover hidden relationships among fraudsters so you can focus on stopping the highest-value fraud networks.

Why is SAS® Fraud Framework for Insurance important?
To detect fraudulent activity, many insurers use transactional monitoring systems, which work well for individual claims fraud. However, to detect organized fraud rings, the unique approach of the SAS Fraud Framework for Insurance monitors customer behavior across multiple claims and lines of business.

For whom is SAS® Fraud Framework for Insurance designed?
SAS Fraud Framework for Insurance is designed for special investigation units (SIU), fraud analysts and claims managers within insurance companies.

SAS® Fraud Framework for Insurance

Fraud is a large and growing problem for the insurance industry. About 10 percent of insurance claims are fraudulent and cost the P&C industry up to $40 billion a year in the US alone. Today's fraudsters are highly sophisticated criminals who are constantly changing their tactics to exploit insurance companies' vulnerabilities.

To solve these challenges, the SAS Fraud Framework for Insurance provides enhanced fraud detection and improved investigation efficiency while decreasing the total cost of ownership.

SAS Fraud Framework for Insurance calculates the propensity for fraud at each stage in the claims process using multiple detection techniques. Alerts for potentially fraudulent claims are routed to special investigation units where investigators can use case management tools to rapidly investigate suspicious claims. Once a claim is scored and prioritized, an investigator can perform a more in-depth review of the claim characteristics to determine if the claim or any associated historical claims are fraudulent.

Solution Overview
SAS Fraud Framework for Insurance provides an insurance-specific fraud data model, prebuilt data management capabilities and reporting functionality. The solution delivers:

- An advanced fraud analytics engine that uses multiple techniques for fraud detection, including automated business rules, predictive modeling, text mining, database searches, anomaly detection and network link analysis.
- Rapid model development and deployment.
- A configuration engine to update and refresh business rules and analytical models as needed.
- Comprehensive data integration and data quality capabilities designed to handle large volumes of big data.
- The ability to use and analyze unstructured data, such as claims notes, customer service logs, police reports and medical records.
- A variety of deployment options, including the cloud, for faster implementation and quicker ROI.
Benefits

Decrease fraud losses

- Detect and prevent fraud before claims are paid using our advanced fraud analytical engine.
- Identify loss padding in similar insurance claims with anomaly detection and loss comparisons.
- Use customized predictive models methods to detect previously unknown schemes.
- Spot linked entities and crime rings, which can help stem larger losses.
- Detect insider or collusive fraud by integrating staff data and audit records that show who handled which claims.
- Insert analytical models into your claims process workflow, enabling real-time access to information.

Improve investigator efficiency

- Dramatically reduce false positives with our advanced fraud analytical engine.
- Increase ROI per investigator by prioritizing higher-value networks and conducting more efficient and accurate investigations.
- Facilitate the investigation and capture all information pertinent to a case using our integrated case management solution.

Detect more fraud

- Identify cross-product fraud by seeing all claims across all lines of business.
- Recognize emerging fraud schemes quicker using data visualization features.
- Continually improve models and adapt the system to address changes in insurance fraud trends.
- Better understand new claim threats and prevent large losses early using link analysis diagrams and sophisticated data mining capabilities.

Gain more value from your data

- Access and manage nearly any data format and source of information.
- Analyze both structured and unstructured data.
- Improve data quality by eliminating or reducing data inconsistencies.
- Gain a holistic view of more and larger data sources for better accuracy.

Realize a faster time to value and lower total cost of ownership

- Use flexible deployment options, including on-site, hosted or a cloud service.
- Customize our advanced fraud analytical engine to meet your specific requirements.
- Run prebuilt models in the cloud for faster implementation and quicker ROI.

Improve your competitive position and customer service

- Achieve fewer false positives, leading to greater customer satisfaction for legitimate customers.
- Accelerate prompt payment for genuine claims.
- Satisfy regulatory compliance mandates through enhanced fraud management.
- Discourage fraudsters from targeting your organization by catching them early.

Capabilities

SAS offers an integrated end-to-end solution for detecting and preventing claims fraud that delivers the following capabilities:

Fraud data management enables insurers to consolidate both structured and unstructured data from internal and external sources for fraud analysis and investigation.

- Eliminate or reduce data inconsistencies with data quality tools.
- Integrate with third-party fraud applications.

Figure 1. The drill-down capabilities of the SAS Social Network Analysis solution’s visualization interface in a suspicious network.
Financial crimes monitor enables insurers to logically manage rules, models and alerts for investigators.

- Create and manage business rules, analytical models and known fraudster lists.
- Maintain simple or complex routing and suppression rules.

Advanced fraud analytical engine enables the systematic detection of suspicious activity using a combination of analytical techniques to determine the likelihood of insurance fraud.

- Evaluate claims with an online scoring engine that uses a combination of business rules, anomaly detection and advanced analytic techniques.
- Calculate the propensity for fraud at first notice of loss, then rescore claims at each stage in the claims process as new data is captured.
- Go beyond claims fraud detection by deploying at policy inception to prevent fraudsters from taking out policies in the first place.

Alert management assembles alerts from multiple monitoring systems, associates them with common claimants, and provides investigators with a more complete perspective on the risk of a particular claimant or individual.

- Calculate risk scores based on specific characteristics with transparent reason codes.
- Prioritize alerts and route suspicious claims to appropriate team members.
- Automate work assignments so they’ll be appointed to various investigators or analysts based on predefined rules.

Network link analysis provides a network link visualization interface that helps insurers detect and prevent organized claims fraud by going beyond transaction and account views, analyzing all related activities and relationships at a network dimension.

- Automatically identify suspicious networked behavior in the data and provide investigators with an intuitive visualization interface.
- Uncover previously unknown relations, giving investigators the ability to identify linkages among seemingly unrelated claims.

Case management provides a comprehensive means to investigate, capture and display all information pertinent to a case.

- Improve investigator efficiency with fast access to full claims details and all related parties and networks.
- Increase investigator effectiveness by enabling them to merge and delete network entities and add annotations (text and images) to specific entities in a network.
- Store detailed investigation activity information (e.g., interview notes and evidence for criminal or civil prosecution, restitution and collections.)
- Assess overall fraud exposure, including losses due to fraud, as well as fraud detected or prevented.
- Use a configurable workflow for the management and resolution of cases.

Figure 2. Investigators can easily access details on all related claims, parties and networks.
The SAS® Difference

Industry-leading data management capabilities
- SAS offers insurance-specific data models and automated processes that reduce the intensive data preparation requirements that monopolize your resources.
- Our predefined routines dramatically improve your data quality for fraud detection models, making your fraud detection efforts far more efficient.

Advanced fraud analytical engine
- No one detection technique will allow for the best result. Only SAS offers a combination of multiple techniques for fraud detection: business rules, anomaly detection, predictive models, database searches and network link analysis.

Network link analysis
- By analyzing linkages and relationships associated with claim and other processing activities, you can discover organized fraud rings that might otherwise take years to identify and prevent.

Text analytics
- Up to 75 percent of claims data is unstructured, including adjuster notes, customer service logs, police reports and medical records. Insurers can use SAS Text Analytics to analyze this data and increase fraud detection rates.

Cloud deployment option
- By opting for a cloud deployment, you can accelerate your fraud prevention capabilities with a set of prepackaged business rules, anomaly detection and predictive models specifically tailored to detect insurance fraud.

Flexible and configurable
- Fraud schemes are not all the same. A scheme that starts in one geographic area may morph as it spreads to other areas. Also, fraudsters continually modify schemes in an effort to escape detection. SAS Fraud Framework for Insurance is a “white-box” solution, giving you greater transparency and the flexibility to configure the solution based on your organization’s specific needs. And you can continually improve models and adapt the solution to address changes in insurance fraud trends.

To learn more about the SAS Fraud Framework for Insurance, download white papers, view screenshots and see other related material, please visit sas.com/insurancefraud.