

A photograph of two women, one with blonde curly hair and one with dark hair, looking intently at a tablet held by the blonde woman. The scene is lit with warm, golden light, creating a professional and collaborative atmosphere. An orange horizontal band is overlaid across the middle of the image, containing the title text.

Using Teradata Business Analytics Solutions to Mitigate Fraud



Businesses are more vulnerable to risk than ever before. Although the degree of risk varies by industry and takes many forms, all companies face increased threats and most do not have the capability to identify and quickly mitigate risk before it negatively impacts their business. Some risk, such as financial fraud, can cost companies millions of dollars per year and erode their brand equity.

The property and casualty (P&C) insurance industry, for example, faces constant exposure to claims fraud. With claims fraud becoming more sophisticated, insurance companies need better solutions to solve the multi-billion dollar problem that accounts for a significant portion of all insurance claims.

What insurance companies need is a business outcomes focused, technology enabled analytic solution that identifies fraud before a claim is paid. Teradata consultants worked with a P&C insurer to offer exactly that. The consultants used Teradata Business Analytics Solutions, which combine proven analytic intellectual property, specialized analytic business consulting skills, and scalable, high performance, analytic ecosystems designed to accelerate high-impact business outcomes across a variety of business functions.

See the Big Picture of Claims Fraud

Like many businesses, the insurance company faced the challenge of having a small team tasked with investigating an overwhelming number of fraud cases. Teradata consultants helped by leveraging the Teradata Business Value Framework, which identifies and prioritizes business use cases to align with the company's strategic initiatives. The low-risk engagement model brought together business knowledge, data science and advanced analytic solutions to make claims fraud detection more effective.

The Business Value Framework allowed the consultants to determine how to best utilize the company's data to deliver the most value in an accelerated timeframe. The main data source was a set of documents containing customer claim information. Text mining techniques extracted details from the documents such as bank accounts, email addresses, phone numbers, car registration details and other unique identifiers that could be analyzed. This allowed fraud analysts to focus on a small subset of data to make processes more efficient while still identifying instances of claims fraud.

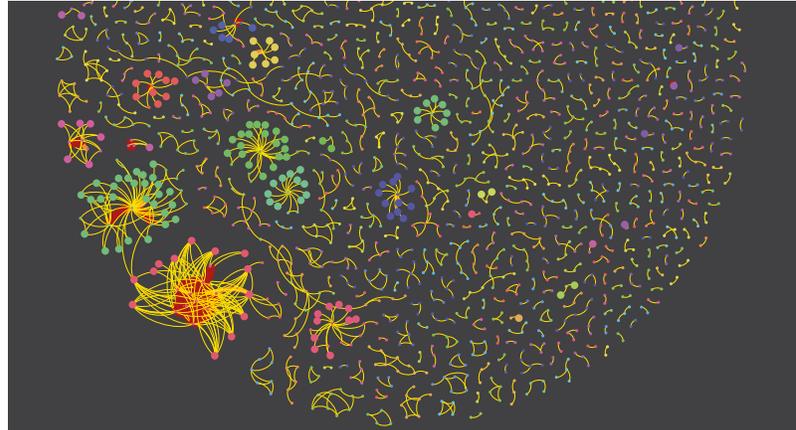
Analytics uncovered connections between claims, which indicated a high likelihood of fraud. Teradata consultants used graph modeling and graph metrics to visualize those connections, making them stand apart from the noise. This let investigators focus on cases of probable fraud, resulting in a better use of limited resources. Plus, finding connections between cases of fraud helped identify complex, organized crime rings that pose a high risk to insurers.

Enabling Investigators with Technology Delivers High-Impact Results

In the insurance business, timing is critical. Ideally, insurers seek to identify fraud before making a payment on a claim. Otherwise, it's very difficult to recover the money once it's paid. By using analytic solutions to optimize business processes, Teradata consultants gave the insurance company the ability to identify new fraud cases faster and also find patterns and details that could predict future fraud.

Teradata consultants also implemented new processes that withheld automated payments on claims that appeared fraudulent. Fraud investigators armed with technologies such as machine learning and advanced analytics could then review those cases for further action. The Teradata Business Analytics Solutions also made the insurance company fraud team more productive by eliminating red herrings that could be mistaken as fraud so investigators were not investing time and resources on legitimate claims.

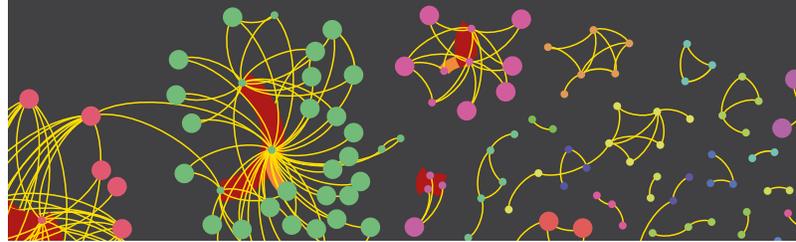
The same analytic techniques and methodologies used to detect claims fraud at higher rates can be leveraged by businesses in any industry to reduce risk exposure and solve other challenges. The Teradata consultative approach backed by industry-leading solutions uncover analytic insights that give companies the ability to create and automate new business rules to make processes more efficient and effective.



“Fraud Invaders” Visualizes Fraudulent Connections

Teradata consultants used data, analytics and visualization techniques to present insurance claims as art. The Art of Analytics picture “Fraud Invaders” tells a story—a story of risk, fraud and opportunity. Each dot represents an insurance claim. The small dots are claims not yet investigated, while the large ones are known instances of fraud. The lines between the dots represent a connection between the claims documents. So, for example, if two claims were made by the same person or shared an address, phone number, bank account, vehicle or other criteria, the visual graph will show that connection.

Clusters around big dots, which look similar to bug-like-invaders, indicate a correlation with fraud. This gives analysts a list of likely fraud cases to investigate, which is a more efficient and cost effective approach than spreading resources across all claims. The picture answers a pressing business question many organizations face: How can we better identify fraud?





Gain New Business Value

Many companies are limited by personnel, available skill sets and other resources to properly mitigate risks such as claims fraud. To overcome this challenge, Teradata consultants use Business Analytics Solutions that find new ways to deliver business value from data and analytics. This approach allows businesses to identify risks such as claims fraud sooner in the process and achieve high-impact outcomes that save time and money.

Connect with Teradata

Watch our video series, *The Art of Analytics*, featuring *Fraud Invaders* for more details on ways Teradata analytic consultants enabled risk mitigation for a P&C insurance company. To find out more about how Teradata Business Analytics Solutions can deliver high-impact business outcomes, visit Teradata.com.

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