



ARTIFICIAL INTELLIGENCE AND
INTELLIGENT FRAUD
DETECTION

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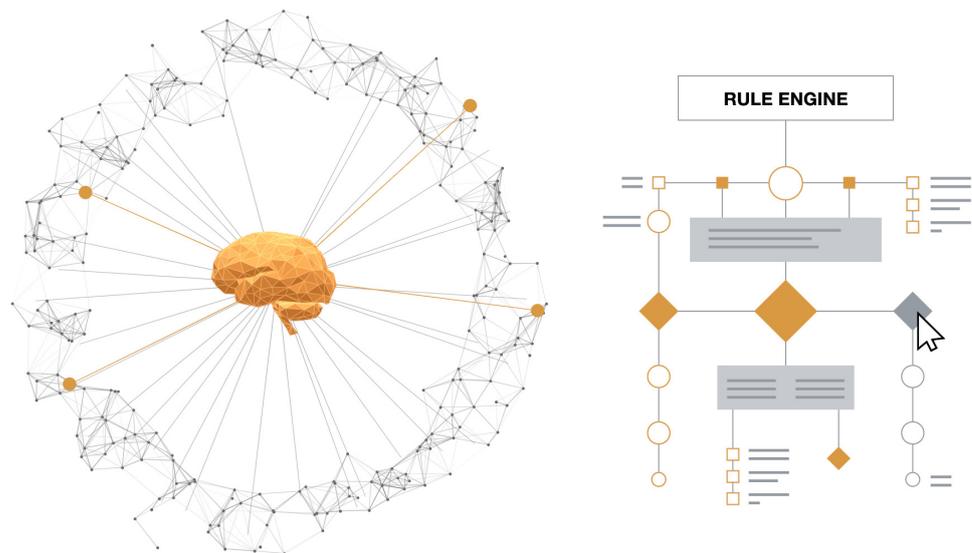
The Coalition Against Insurance Fraud estimate that frauds costs \$80 billion a year across all lines of insurance. In a highly competitive industry reducing such a cost is an obvious path to improving profitability. Any reduction in fraud will directly impact an insurance company's bottom line.

Companies have invested into IT to streamline their claims processing. Sometimes an automated claim should merit human analysis and then question becomes how you determine the conditions or rules that stop a claim process flow? Intelligent Fraud Detection is a solution that helps you stop claims that may be grounded on false data or where the data is correct but the underlying elements of the claim are not justified. Corporations will find significant cost benefits by stopping such claims from further processing and Profium Sense for Intelligent Fraud Detection is an ideal tool for this purpose.

Benefits of Profium Intelligent Fraud Detection

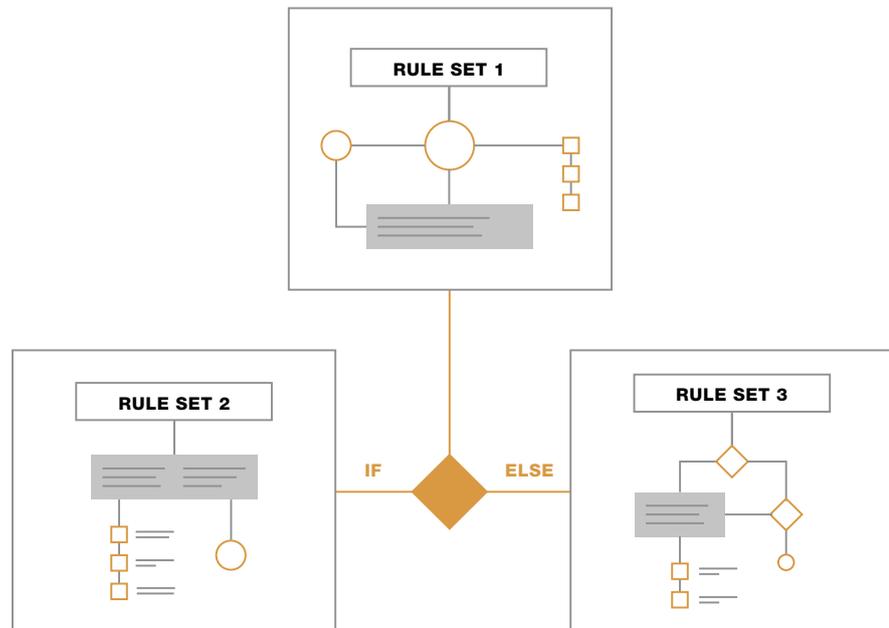
Data used by the rules to detect fraud may come from a diverse range of sources such as, photographic metadata, geographical data and social media. Rules acting on this data can detect anomalies. For example the metadata of photographic evidence may contradict the time or location of the reported incident. Social media connections may help determine serial claimants, or that the parties involved in an accident have a shared history and therefore may be conspiring together.

With Profium solution your analysts can develop rules which take different fraud scenarios into account and save those rules to test and production environments without delays from IT who would need to install new releases of software. The development of the rules is supported with an easy-to-use graphical editor which requires no programming skills. The rules can therefore be easily tuned based on the outcome of investigations initiated by them so that false positives are reduced over time.



Our artificial intelligence rule engine can be easily configured without any prior programming skills with an easy-to-use graphical editor.

Existing rules can be used as building blocks when creating new rules. This means complex rules can be created by combining multiple other rules together using common logical operators in a hierarchical manner. This allows easy re-use of common rule components across different insurance products and simplifies the visualisation and editing of existing rules.



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In the event of rules indicating a suspicious claim, advanced analysis of social media such as automated facial recognition in images can show that a claimant was active while claiming to be incapacitated, or at a different location than reported at a specific time.

With technology, and the data it produces advancing so rapidly it's important to be flexible enough to take advantage of new data sources as they become available. Because Profium Sense uses an unstructured graph database, new data concepts can be introduced dynamically at runtime along with rules that are based on that data. Therefore new sources of information that are related to claims or aid in the detection of fraud can easily be integrated with the system over time as they are developed.

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Profium Sense supports integration with your back-end systems with technologies such as REST APIs which make it easy to make information about your customers, their insured items and other relevant data available for analysis. Any data, formatted as RDF, can easily be imported or exported from the system and queried using rules. Rules can be defined to evaluate against specific fields in the data, and they support a range of standard operators such as an exact match, a sub-string contained in the data, wildcards and standard numerical operators (equals, less than, greater than etc...) and time-date range operators.

There are also some more advanced operators available such as geographic distance, matching multiple words appearing in the same sentence or paragraph and language stemming (e.g. stem of “argue” matches “arguing”). Additionally, all operators and rules can be negated.

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About the Author

Janne Laakso is the Chairman and SVP of Profium. He is also responsible for Profium's sales and marketing operations internationally. Profium's core business is licensing of Sense products.