GRADIENT AI

CASE STUDY

Client case study: Straight-through processing

Client: A multi-billion-dollar US insurer with significant business in the small commercial market.

Requirements for the solution

- Accurately predict policy risk levels
- Significantly increase percentage (>50%) of small commercial policies that are handled by STP reducing the manual effort required to process new applications
- Maintain or improve loss ratios

Business challenge

A multi-billion dollar US commercial line insurer sought to increase its Straight-Through Processing (STP) for its small commercial market lines.

This challenge represented an opportunity to streamline this higher volume segment of its business with automated processes to drive more profitability and enhance customer service.

Gradient AI's STP solution

Gradient AI's STP machine learning solution leveraged its loss prediction model trained on the carrier's 5-year historical dataset as well as anonymized small commercial market policies from Gradient AI's vast proprietary federated claims and policy dataset.

Model inputs included the carrier's underwriting criteria (e.g., limits, geography, size/number of buildings, building age & condition, industry classification, etc.) as well as a selection of proprietary Gradient AI variables and third party variables sourced, curated, and delivered by Gradient AI. Gradient AI's library of variables includes economic, health, and litigation datasets.

The model was then tested and validated for performance on a combined sample of historical policies from the carrier's book of business and selected from Gradient AI's federated dataset.

Results and outcomes

The results and business benefits included:

- **Doubled applications handled by STP**
- **Reduced loss ratios by over 10%**
- **Increased ability to scale business with less friction and expense**

How Gradient AI's solution works

The insurer can specify a loss threshold where applications lower than the threshold are then passed to an automated process for STP. The processing works as follows:

- Once a policy is entered into the broker's system and determined to be small business eligible, the application passes through to the carrier's rating engine.
- After the application has been auto-rated, it is then scored by Gradient AI's loss prediction model where the model computes a predicted loss score.
- If the predicted Loss score is lower than the specified 'straight-through' threshold of the carrier, the application then passes through an automated process to ensure that pricing and exposure levels are consistent with the carriers' underwriting guidelines.
- The process checks to ensure underwriting guidelines are met and if they are, the application is bound without any manual underwriter intervention.

About Gradient AI

Gradient AI is the decision-intelligence partner, giving customers an advantage in how they make decisions by revealing risk others miss and translating it into stronger performance and real-world impact.

Gradient AI harnesses a vast industry data lake comprising tens of millions of policies and claims, enriched with economic, health, geographic, and demographic signals. That depth of data, paired with deep domain experience, surfaces signals that other approaches miss and turns them into decisions teams can stand behind. The result is complex risk made clear and usable, with the structured reasoning teams need to align finance, compliance, and executive leadership around what the data is saying.

Our customers span the industry: recognized carriers, brokers, consultants, MGAs, MGUs, TPAs, risk pools, and PEOs. We support their dual mandate — stronger financial outcomes and better experiences for the members and workers they serve.

Interested in learning more about how predictive analytics can transform your claims organization? Let's start the conversation.

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