

Case Study: Insurer targets location accuracy to lower policy risks and improve pricing

Overview

When this property-and-casualty (P&C) insurance leader replaced its outdated policy administration system with a third-party cloud solution, it needed a better way to determine exact property locations. Geographic precision allows the insurer to view where policies are located, down to the parcel- or building-level, providing information such as their proximity to different kinds of risk. With this information, insurers are ready to generate more accurately priced policies. While adding this step to their internal processes, this information also needed to seamlessly integrate into the new policy administration system.

Business challenge

The insurer's legacy geolocation software vendor was able to provide information at the parcel (lot boundary) level only about 50 percent of the time. Often the solution assigned a location only to the block or ZIP Code level. Without more precision, the insurer could either underprice a policy, which resulted in undue risk, or overprice policies, which might result in lost business.

The insurance company needed its new policy administration system to incorporate highly precise location information. It also wanted to enrich its internal data with externally available data sources to support more accurate risk assessments.

Solution

The insurer had previously implemented the Precisely Spectrum products to improve data quality and enhance risk models for its actuarial group. When it needed to incorporate Location Intelligence into its pricing models, the company again turned to Precisely.

The P&C insurer rolled out the Spectrum Technology Platform to consolidate and validate data from its disparate internal systems. Now the solution determines specific geographic coordinates for each location and assigns each a unique identifier, known as a PreciselyID, that remains persistent with the address location even if the latitude/longitude coordinate moves or improves up to 50 feet.

This PreciselyID unlocks a wealth of information associated with each location (such as previous storm or flooding events), and because each PreciselyID is linked to specific geographic coordinates, all associated information is preserved over time, even if the policy or customer changes.

Client profile

- A national, top 25 property-and-casualty (P&C) insurance company
- Provides a diverse range of commercial and personal insurance products
- Fiscal year 2017 revenue exceeded \$30 billion

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The result is a dataset with 198 million properties (each one with a PreciselyID) that Precisely then enhances with third-party information such as wildfire scores, distance from the coast, or flood zone attributes. Spectrum Spatial simplifies data analysis by creating graphic representations of factors such as wildfire, landslide, or flood danger. The module also calculates driving time between locations, such as a fire station and a particular address — an important consideration in assessing risk and pricing policies.

All this information is now integrated into the insurer's new policy administration system, improving the quality and quantity of data underlying pricing decisions. The Precisely solution has also decreased the insurer's "time to quote" by enabling a higher volume of quotes to go through an automated process that returns all risk attributes associated with a particular address in just one-tenth of a second.

Benefits

By validating and enriching its data through Spectrum, the insurer increased the proportion of properties for which it has parcel-level Location Intelligence from just half to nearly 100 percent. This provides invaluable data that the company uses in assessing location-specific risks. In addition, the persistent PreciselyID's enable the insurer to view claims and catastrophic events for a specific location over time regardless of the current policyholder. This provides a unique and more permanent perspective in evaluating risk by geographic location, in contrast to how most P&C companies evaluate hazards only by policy or the individual associated with the policy.

After implementing the Spectrum Technology Platform, the insurer reevaluated risk and pricing models previously used in pricing decisions. The company found that with Spectrum Spatial, it could have improved its loss ratio between 0.3 and 0.6 percent, representing millions of dollars in savings.

The insurer projects a complete return on investment (ROI) in 14 to 17 months. Deployment speed is a crucial factor in achieving that ROI: The entire project spanned less than five months, from initial data consolidation, through validation and enhancement, to integration with the policy administration system. As effective as it has already proven to be, the solution continues to evolve. With almost 200 million U.S. properties tagged with unique PreciselyID's in place, the insurer can now layer on other data, creating additional insights into geographic risk and can also add demographic data to provide more accurate, customized products for its policyholders.

Technology used

- Spectrum Geocoding for Big Data
- Spectrum Routing for Big Data
- Spectrum Location Intelligence for Big Data
- Spectrum Spatial

The insurer re-ran a number of risk assessments that it had previously used in pricing decisions. With the output from Precisely Spectrum Spatial, it could have improved its loss ratio between 0.3 and 0.6 percent.