

CapSpecialty® Achieves up to 200 Times Faster Reporting with Snowflake

ABOUT CAPSPECIALTY

CapSpecialty, through its subsidiaries, is a leading provider of specialty insurance for small to mid-sized businesses in the U.S., offering commercial property and casualty, professional liability, surety and fidelity products in all 50 states and the District of Columbia. By working with select partners through a limited distribution model, CapSpecialty's creative, hard-working team provides personalized service and cultivates mutually successful partnerships to deliver positive results.

THE CHALLENGE: SLOW ANALYTICS COSTING TIME AND MONEY

To provide overall business analysis and operational insurance data, CapSpecialty's actuarial department analyzes large quantities of business and operational performance data. Some of the reports analyze 10 years of historical data and took almost a full day to run on the legacy data warehouse.

To speed up the performance of its data warehouse, CapSpecialty initially considered expanding the existing footprint of its incumbent environment by beefing up hardware. However, the hardware expansion turned out to be a poor investment.

"It was going to cost close to half a million dollars just for licensing costs, and that would only double the speed," said Ken Wood, data team manager for CapSpecialty. "This was just a fraction of the total cost of ownership once we considered security and all the pieces needed for expansion."



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Data Team Manager, CapSpecialty

Instead, CapSpecialty began a search for a new solution that met the following key requirements:

- * Speed and price for performance
- * Ease of conversion and migration
- * Flexibility and accessibility
- * Security

SNOWFLAKE CLOUD DATA WAREHOUSE OFFERS A BETTER APPROACH

After evaluating a number of data warehouse options, CapSpecialty decided to implement the Snowflake cloud-based Elastic Data Warehouse. Besides offering an attractive cost structure, Snowflake's true cloud solution delivered ease of migration and scalability.

"We looked at a handful of different cloud options," said Wood. "Ease of conversion and migration was the biggest factor in our decision to move to Snowflake."

In addition to easy migration, Snowflake demonstrated a level of scalability and speed that would serve CapSpecialty's future growth.

"When we found Snowflake, at first we were skeptical that it could be that much faster," said Wood. "But now we believe it. We're seeing reports come in up to 200 times faster, with 20 times faster on the low side. We didn't really expect the speed advantage, so that was just a bonus for us."

Using Snowflake allowed the CapSpecialty team to leverage its existing, familiar tools, which ensured accessibility for its data analysts.

"Our existing tools work with Snowflake, such as MicroStrategy and Pentaho," said Wood. "We could just switch the data source, which made it really seamless."

However, all the scalability and speed meant nothing until security concerns were met, especially considering the security and privacy concerns of the insurance industry.

"We did a lot of digging with our IT security guys and the Snowflake team to make sure that our data was going to be safe," said Wood. This included scrutinizing encryption at rest and in flight, as well as the HIPAA security configuration.

"We came to the conclusion that we achieved better security with Snowflake than we could ever do on our own."

Bob Asensio
CIO, CapSpecialty

UP AND RUNNING IN LESS THAN A WEEK

CapSpecialty conducted proof-of-concept (POC) testing to ensure ease of migration, use of existing tools and speed. During the POC, a Snowflake environment ran side-by-side with another cloud solution and an on-premises environment.

"The Snowflake POC worked great," said Wood. "We tested with almost a full copy of our data warehouse out to Snowflake and ran real reports. In a week or so, we were up and running. As far as building the database, it was really easy."

While legacy data warehouse providers take time to spin up, Snowflake's data warehouse as a service enables entire data sets to be moved into the cloud quickly and easily.

"For a lot of vendors, a POC is a controlled demo," said Bob Asensio, CIO of CapSpecialty. "Snowflake deployed an entire data warehouse in a couple of days and worked with investments that we've already made. The performance was an added bonus."

"Snowflake's ability to work with our existing tools aided in the continuity and accessibility of data throughout the organization," said Wood. "This meant the learning curve was minimal. A lot of people understood the current tools, tables and processes, so not having to learn the whole NoSQL stuff with Snowflake was big for us."

"From the technical side of things, the support response from Snowflake was really awesome," continued Wood. "It's not like we made a decision and now have to live with a pain point. The Snowflake team makes sure that everything goes smoothly for us."

IMMEDIATE RESULTS TRANSLATE INTO BUSINESS BENEFITS

Speed of Reporting Increased 20-200 Times

Reports that included years of historical data took hours or days to run in CapSpecialty's legacy environment, now take only minutes. "With a small configuration in Snowflake, we can now run an entire set of monthly reports, what used to take 2-3 days, in 45 minutes," said Wood. "We were blown away by that. The 20 to 200 times faster speed gives us huge scalability advantages. A single month-end report that took 20-22 hours, now takes 4 minutes."

Faster Business Decisions

The increased speed of reporting enables CapSpecialty business users to make decisions faster, in a couple of minutes versus 1-2 days. "Snowflake allows us to focus on finding answers and addressing the business problem, versus spending time worrying about infrastructure," said Asensio.

Scalability

In addition to the faster speed of reporting and decision making, CapSpecialty also has a platform that can scale for future growth. While today CapSpecialty has 250 users, that number will grow. Snowflake easily accommodates changes in total users as well as adjustments in concurrent users. The type of data that CapSpecialty processes is also changing. "Snowflake gives us a huge scalability advantage," said Wood. "With Snowflake we're set to manage our future business needs."

Lower Cost of Ownership

By using the Snowflake Elastic Data Warehouse, CapSpecialty avoided spending hundreds of thousands of dollars compared to an on-premises solution. The savings include not only the \$500,000 in license costs, but also hardware and services costs related to upgrading with the incumbent data warehouse provider. On the operational side, what would have taken weeks to set up with an on-premises environment took only a few hours with Snowflake. CapSpecialty also avoided the complexities of an on-premises legacy data warehouse environment, including setup, management, deployment, etc. Plus, Snowflake fit easily with their existing data and analytical tool set.

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LOOKING INTO THE FUTURE

With Snowflake in place, as a next step CapSpecialty is considering bringing different semi-structured data sources into the Elastic Data Warehouse. Because no major transformation and management is required to analyze new or changed JSON, AVRO, and XML data inside Snowflake, CapSpecialty can use one service to analyze diverse data.

Results Exceeded Requirements

- * Superior price/performance – 200x faster
- * Fast time-to-value – Deployed in days
- * Low cost of management – Data warehouse as a service
- * Accessibility for data analysts – Pure SQL
- * Scalability – Performance on-demand
- * Enterprise-level security