

Technology

Better Ways

New regulations and market-changing events are driving carriers to risk-management technology solutions.

by Lori Chordas

Inside just about every corner of an organization lurks the need for risk management.

That's why technology is no longer optional; it's become a must-have tool for carriers to generate comprehensive risk analyses.

"Sophisticated computer-based risk models on platforms that go well beyond what can be done on Excel spreadsheets now are understood to be requirements to comply with regulations like Solvency II," said Christopher Suchar, a director at asset management solutions, services and research provider Conning.

Technology puts data at the forefront and provides risk analysis, monitoring and modeling, data collection, storage and communication. It also helps companies make sound business decisions for a complete range of risks, and to decide what controls to put in place.

However, nearly half of respondents to an Oracle Corp. survey said they lack tools to assess performance management and risk together.

Nearly three-quarters said their IT infrastructure wasn't capable of using stored data to provide a full risk assessment, while almost half noted a lack of confidence in the accuracy of data related to risk.

And, the study goes on to say, only 18% of respondents could deliver risk management analysis in real time.

That's beginning to change as carriers invest larger portions of their IT budgets in risk management systems, noted Stuart Rose, global insurance marketing manager for business analytics software provider SAS.

"Some of the budgetary constraints over the past three years due to the recession are now being removed and carriers are beginning to see how they will update some of their risk solutions," Rose said. Those investments include data warehouses and data integration tools "to improve consistency and quality of data to feed into some of the risk models carriers already have developed."

The growing regulatory environment also is driving the need for risk management technology tools. "Regulators expect faster and more sophisticated reports. Carriers need to deliver them in a shorter time frame and rating agencies are also looking to insurers to provide similar information for them or their ratings may be downgraded," Rose said.

With Solvency II (an updated set of regulatory requirements for

Key Points

- ▶ **The Need:** Financial uncertainty and turbulent capital markets have increased the need for carriers to measure and manage operational risk.
- ▶ **Filing the Need:** Technology is helping insurers monitor their companies' continuing risks.
- ▶ **What's to Come:** New and upcoming regulations, like Solvency II, are further driving the need for these technology-based tools.

insurers operating in the European Union due to launch in 2013) "carriers aren't only talking about technical provisions but also different models that will help them mitigate risks related to usual activities on the operational side of the business," said Nicolas Michellod, a senior analyst with financial research and consulting firm Celent.

However, technology can't go it alone. People who understand business strategies and can communicate well with others also are a vital part of the mix, said Rose. "I call it the three P's: identify processes and potential risk factors to evaluate and have necessary people to do that."

Best's Review took a look at several risk management technology solutions being used in the industry today.

ADVISE and GEMS

The aftermath of the 2008 financial crisis is serving as a catalyst for today's risk management, said Conning Director Chris Suchar.

"Risk models now need to be able to reproduce events like that. Many models that existed before 2008 didn't anticipate what happened at that time," he said. "Ours did, since we calibrate from a very long historical record that includes past crises. We got it right, but many did not simulate those kinds of outcomes and therefore, many risk managers were blind to the possibilities of what actually happened. Those market stress events had effects on both sides of the balance sheet for many carriers."

Conning's company model ADVISE and its GEMS economic scenario generators are changing that.

"One of the signature features of both is that they address both sides of the balance sheet," noted Suchar. "Most other modeling tools focus only on either the asset management side or liability side, with an overly simplistic treatment of areas outside that specialization."

ADVISE, a stochastic, Monte Carlo simulation tool, is designed to meet the requirements of insurance risk analysis for life, nonlife and reinsurance companies. Carriers can project a full range of possible outcomes to properly assess and manage risks, he said. ADVISE com-



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bines complete business logic in liabilities, investments, accounting and economic scenarios for enterprisewide modeling with the flexibility of a toolkit or spreadsheet.

"With the GEMS economic scenario generator, the principal advantage is in the robustness of the models," said Suchar. "That means companies can simulate stressful environments like the recent economic crisis."

The three GEMS products include: the GEMS Scenario Master, which provides advanced modeling and estimation technology; GEMS Portfolio Analyzer that allows users to model multiple investment portfolios and handle applications such as strategic/dynamic asset allocation and variable annuity hedging; and GEMS Enterprise Modeler, which can model applications such as multi-entity risk management and reverse stress testing to produce real-world and risk-neutral scenarios.