



Smart Core

Bring Your Own Models (BYOM)

DATA SHEET

For today's modern insurer, the pace of decision making has increased, data is abundant, and advances in technology have opened new opportunities to create and capture value through analytics. Insurers today want to leverage data-driven predictive insights that augment human intelligence to make smart decisions across pricing, claims, underwriting, and operations. It's not uncommon for insurers to have dedicated teams of data scientists and actuaries that may use a variety of modeling tools and techniques to achieve these business objectives.

However, the reality is that most insurers struggle with the last mile—operationalizing the analytic outcomes within day-to-day core processes to create business value. Many insurers have a data science team and have an inventory of models built out but struggle to deploy them for the business. The reason is that deploying predictive insights into core processes, particularly when using multiple modeling tools, presents a unique set of challenges:

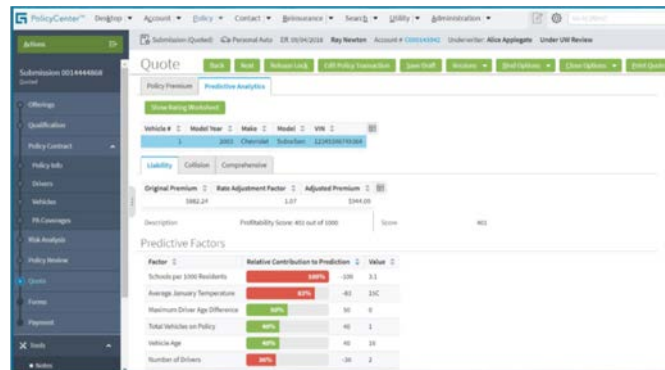
- **Real-time integration:** Realizing maximum benefits from predictive analytics requires integrating model outcomes into core systems in real time. IT organizations are challenged with understanding how to efficiently deploy outputs from multiple modeling tools, each requiring different integration techniques.
- **Model management:** As business owners increase their reliance on predictive insights, the number of models used increases exponentially, and the models can become decentralized throughout the organization, making it impossible to manage model versions, retire unused models, and have appropriate audit controls. To manage growth, a centralized model management tool becomes essential for long-term success.
- **Model performance:** Constantly measuring model performance is key to creating business value. Over time, even the best models may not perform at optimal levels due to changes in input variables as well as operational and regulatory changes. The ability to actively monitor model performance across the organization is a critical component of any predictive analytics strategy.

Guidewire Predictive Analytics

Guidewire Predictive Analytics™ supports a **BYOM (bring your own models)** approach by enabling the deployment, integration, and monitoring of existing (or new) predictive models created using third-party tools. This enables a true **Smart Core™** system in which real-time predictive insights are embedded within Guidewire core systems with adaptive workflow predicated on the model results. Such a system affords insurers the greatest amount of analytic flexibility while realizing the benefits of an enterprise predictive analytics solution.

The process of bringing external models into the Predictive Analytics solution comprises a series of five straightforward steps that result in a Smart Core system:

- 1. Convert:** Convert the external model to PMML (Predictive Model Markup Language) format. All tools, albeit in different ways, provide libraries for performing this conversion. If multiple models are being used, each model must be converted to a separate PMML file.
- 2. Import:** Upload all the PMML files and the modeling datasets into the Guidewire Predictive Analytics solution. This transfers the model logic and prepares the model for testing and deployment.
- 3. Deploy:** “Run” each model in Guidewire Predictive Analytics by applying the PMML rules to the imported modeling dataset. This creates a “native” version of the model and enables users to confirm that the new model estimates align with the estimates from the original modeling dataset. Users also define the desired form of the model output—score, action item, instructions—so that the results are consumable by the business and the core system. The resulting code is then generated, reviewed, and deployed in the Amazon Web Services (AWS) cloud. The solution’s runtime module is generated along with the interface code needed to deploy. Simple one-model or sophisticated multi-model solutions can be deployed to enable multiple versions of the same solution to co-exist.
- 4. Integrate:** Guidewire provides an integration framework to easily operationalize model results into **Guidewire ClaimCenter™** and **Guidewire PolicyCenter™**. The framework uses HttpClient to call a RESTful service published in Amazon Web Services (AWS), and configuration tools define the scheduled times and triggering events that initiate these calls. Where necessary, UI screens are created or revised to display the model insights. Workflow modifications are triggered by the system to route the claim or submission to the right person based on model suggestions.
- 5. Monitor:** Once the solution begins running in production, the monitoring capabilities of Guidewire Predictive Analytics conduct continuous real-time audits to assess performance. The volume of transactions is measured for material variations. Each instance score is broken down into bands that may reflect consistency with, or departure from, the original score distribution. Variations of each individual input variable are also tracked. This serves as an indicator that the business or data may have changed and the solution needs review and updating.



Guidewire Predictive Analytics helps insurers operationalize analytic outcomes to create business value. The solution supports a BYOM approach to easily integrate existing (and new) models into core systems through automated techniques, saving precious time and cost. After the solution is deployed, model management and monitoring capabilities enable data science and actuarial teams to monitor production solutions throughout the organization. Models showing any drift in results provide an early-warning system for upgrades or replacement.

About Guidewire Software

Guidewire delivers the industry platform that Property and Casualty (P&C) insurers rely upon to adapt and succeed in a time of accelerating change. We provide the software, services, and partner ecosystem to enable our customers to run, differentiate, and grow their business. We are privileged to serve more than 350 companies in 32 countries. For more information, please visit www.guidewire.com and follow us on twitter: [@Guidewire_PandC](https://twitter.com/Guidewire_PandC).