

Earnix



Rating Engine



EARNIX

The Earnix Rating Engine



Today's digital-native customers expect brands that can proactively address their personal needs. Rapidly changing market conditions require insurers to be able to deploy rates and product definitions more dynamically to the market. To meet near real-time consumer demand at scale, automation is essential. Streamlined and automated rating processes must be present to provide the agility to iterate quickly. And delivering rates in a controlled and governed fashion is essential – to ensure consistency, compliance, and auditability.

With customer interactions happening across channels and points in time – a real-time, high-performance rating engine is critical to providing analytically based offers to the market at scale – and in a dynamic and well-governed manner.

Enterprise-wide rating engines serve as the backbone of insurance companies when deploying rates and personalized offers to the marketplace. The Earnix real-time analytical Rating Engine, which is coupled with the Earnix Price-it and Personalize-it solutions, provides high performance and high throughput quote by quote rating and is used by insurance companies who aim to grow their digital on-demand capabilities and provide dynamic, real-time rates and personalized offers to their customers.

The Earnix Rating Engine provides the **speed to market**, **performance**, **governance**, and **automation** that traditional stand-alone rating engines do not support today.





The Earnix Rating Engine – Main Values

Speed to Market



Deploying prices and rates, personalized offers, or other customer-related decisions to all channels is an automated, consistent, and efficient process with the Earnix Rating Engine. This creates a fast and accurate rate change process –speeding up pricing cycles from months to days. Improving the time from proposed rate change to market readiness results in improved conversions and customer satisfaction.

Real-Time Analytical Rating

Delivering real-time decisions is a scalable process, with the Earnix Rating Engine delivering rates to core systems, front end delivery systems, and other rating engines.

The Earnix Rating Engine allows insurers to manage all modeling and business rules in a single customer-facing rating system, enabling to connect real-time from the modeling, though sophisticated what if simulations to any point of interaction. Being able to optimize volume, processing, and decision making allows insurers to dramatically improve speed to market for all modeling and business decisions required at the point of interaction, including price, product definitions, underwriting, risk, and fraud.

The Earnix Rating Engine has embedded modelling capabilities and easy integration with external modeling tools. This allows the rating engine to incorporate all relevant data and modeling parameters in two manners - either natively or from external modeling environments. From a data perspective, data can be sourced via third party integrations - including telematics and Usage-Based Insurance (UBI) data sources. The Earnix Rating Engine provides native modelling capabilities, but also integrates with external analytical modeling environments to enable the swift deployment of complex rating structures. This is done without being hindered by the constraints of relying on external data tables that reside in traditional rating engines.

Deployment of these analytical rating structures is then truly “push button”, providing analytical sophistication and rapid time to market in a simple manner. This allows insurers to deploy analytical offers to any point of interaction through the use of traditional statistical models, machine learning models, natural language processing, and other advanced modeling tools and technologies. The result is a reduced time to market of analytical rating structures, models, and business rules – with testing and deployment cycles that are not dependent on IT.



Model Management

- Import any Machine Learning model developed
- Develop decisioning rules



Portfolio Analysis

- Determine your optimal decisioning strategy
- Identify trade-offs
- Run what-if and simulations as required



Online

- Instantly deploy selected models and decisions
- Any point of interaction supported
- Any online call to external system supported

Performance



Speed to market in rate delivery can only occur if underlying system performance is superior. The Earnix Rating Engine is capable of delivering millions of offers per day, in sub-second timeframes, with very high reliability.

Volume

Insurers that operate across lines of business and geographies have the need for a solution that can scale from a rate and offer delivery perspective. The Earnix Rating Engine can scale delivery volumes as your use of the rating engine increases. Whether you are providing thousands of rates and offers via a single channel and line of business or scaling to deliver millions of rates and offers across multiple digital channels and lines of business, the solution can process analytical calculations to deliver rates at the volume your organization requires.

Speed

Customers desire rates and offers that are delivered instantly, especially on digital channels. The real-time capabilities of the Earnix Rating Engine allow for a request to be presented to the system, an analytical calculation to be performed, and a resultant rate or offer to be delivered – all in sub-second time periods. Being able to quickly deliver a rate or offer to a desired digital channel at this speed exceeds the common batch-style processes that some traditional rating engines provide today.

Reliability

High reliability is critical in order to support always on, real-time rating initiatives. The Earnix Rating Engine solution is cloud-based, running on top of Amazon Web Services (AWS). AWS provides the reliability and high up-times required by today’s insurers.



Governance



For dynamic rate setting programs to succeed, they should enable insurers to implement pricing guidelines and policies, monitor, enforce compliance, audit, etc. In short, rate-setting programs should be well governed. The Earnix Rating Engine provides control over the entire rating process – beginning to end – in a holistic manner across lines of business.

Auditability

The Earnix Rating Engine includes enforced access rights with full logging and auditing of the pricing, rating, and deployment process. All user activity can be managed and tracked, and any action taken by a user is logged for auditing purposes. From the creation and integration of advanced statistical and machine learning models until online rate deployment – the Earnix Rating Engine tracks, logs, and audits - helping insurers adhere to both corporate and local policies. The rating model selection and audit process can easily be mirrored across pricing, underwriting, fraud, risk, and other lines of business.

Consistency

The Earnix Rating Engine includes flexible rule-setting and champion challenger testing at the line of business or corporate level that ensures traceability, transparency, and consistency in the enterprise pricing and rating process. This includes determining which rule versions are used for which channels, regions, and brands. With the Earnix Rating Engine automatically documenting, monitoring and auditing changes, firms can respond quickly to any information requests in a repeatable and consistent fashion.

Accuracy

Accuracy in rating means selecting the right models, iteratively testing and simulating to determine the proper rates and personalized offers to deploy, and then deploying them efficiently to all channels. Choosing model versions by quote type, segment, and channel is simple.

While working on your model - test and learn capabilities, model statistics reporting, model accuracy measurements, and model processing volumes are available and easy for the user to consume. Once the model is ready for production, approvals and notifications can be set, deployment can be done manually or automatically to online servers, and iterative deployment versions can be created.



Automation



Dynamic Rating means being able to iteratively simulate and deploy rates and personalized offers at high volume and speeds, with the ability to update frequently. The Earnix Rating Engine, in conjunction with the Earnix Automation Module, enables automation of various activities such as recurring data management actions, the fitting of models, and the creation of rating and pricing versions.

Agility

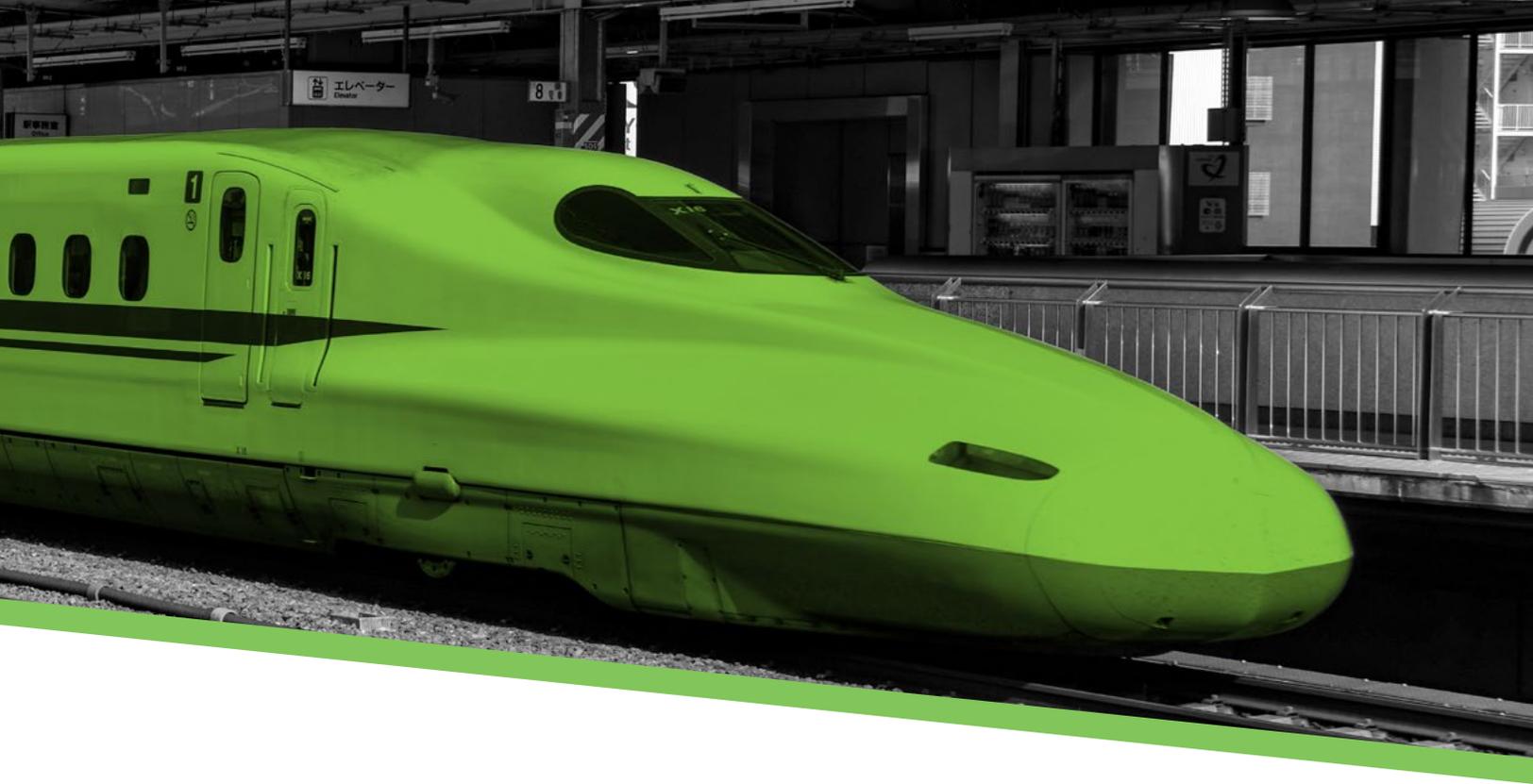
Data Scientists today want the freedom to create and run scripts to automate processes. They want to create and customize these scripts, having written them in Python or other languages, then execute them at consistent, recurring intervals. This allows for agile rating and pricing deployment, as multiple manual and error-prone steps don't have to be replicated when pushing new rates and prices to market.

Ability to Iterate

The Earnix Rating Engine, along with the Earnix Automation Module, allows organizations to save time on repetitive tasks, automate complex processes, focus on more strategic processes, and scale as needed. Included scripts allow users to script and automate repetitive processes, such as data management, project creation, model fitting, pre-production and re-rating testing, and scheduling. This translates to an increased speed of iteration. Being able to define processes once, validate them, and test them – all in a single solution – allows for iterative improvement with minor manual intervention.

Sprint to Value with the Earnix Rating Engine

For insurers that are undergoing or in need of a core system replacement, the Earnix Rating Engine acts as a quickly installed, cost-effective solution to de-risk long term infrastructure projects. Earnix can deliver business value quickly during a multi-year modern core system implementation by putting in place a cloud-enabled, analytics-based, end-to-end rating solution. When the modern core system comes online and is ready for use, joining the Earnix Rating Engine with the new core system is a gradual, seamless process. Analytical rating work done in the Earnix Rating Engine can be leveraged in the new environment.



The Earnix 3D Personalization Suite – Powered by the Earnix Rating Engine



All products in the Earnix 3D Personalization Suite – Earnix Price-it, Earnix Personalize-it, and Earnix Time-it – benefit from the foundational capabilities of the Earnix Rating Engine. The Earnix Rating Engine provides the backbone of speed, governance, performance, and automation that insurers crave as they increase their pricing, rating, personalization, and claims processing speed and agility to meet consumer demands of today. More about the products that comprise the Earnix 3D Personalization Suite and rely on the Earnix Rating Engine:

Earnix Price-it

instantly deploys new or updated rates to online channels, serving up to millions of quotes per day. These fast deployment and response times are needed by the digital channels that serve customers today. Earnix Price-it manages the end-to-end pricing process – from data management to analytical modeling and decisioning to portfolio analysis and monitoring. The rate deployment process is then handled by the Earnix Rating Engine.

Earnix Personalize-it

offers new product bundles and personalization strategies to online digital channels in real-time. The optimal variables, whether coverages, add-ons, or riders – are analytically determined and are fit for accuracy by the Earnix Rating Engine.

Earnix Time-it

allows insurers to identify and anticipate customer needs through real-time big data analysis. Personalized offers are then delivered to digital channels. The calculations needed for this personalized, well-timed offer are provided by the Earnix Rating Engine.



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