SAPIENS
Decision

Automated Decisioning for Today's Mortgage Manufacturing Challenge

Introduction

The mortgage industry is critical to the U.S. economy as the financial engine that enables a cornerstone of the American dream: home ownership. Mortgage loans themselves remain a key barometer of the health of the US markets with loan originations amounting to over $1 trillion a year. Today, the mortgage industry is facing lower volumes, although rates are expected to drop further in 2025, reigniting growth. But even when that happens, many of the same automation challenges will persist, creating the same inefficiencies and lost opportunities that impact lenders' profitability.

The Automation Challenge: Business Rules

Underpinning today's mortgage lending processes are complex rules that are located in various media and technology mediums. They are hardcoded in systems, contained in corporate policy, PDFs, embedded in spreadsheets, and shared in emails. Rules are the "special sauce" for mortgage lenders, and guide critical decisions throughout the entire lending process, specifically:

- Is the borrower eligible for the product?
- What LLPAs are applicable?
- Is this loan safe to disclose?
- Which loans do we hold in our portfolio?

To remain competitive in today's dynamic mortgage lending market, mortgage lenders need to keep up with rapid rule changes with automation. As market conditions evolve, so does their ability to manufacture loans quickly, without defects or exceptions.

However, automating rule changes can be challenging because rules that are developed and hardcoded in control systems are inflexible and expensive to change using scarce IT resources.

- Spreadsheets containing rules are error prone, and difficult to govern and test;
- Rules in checklists create unnecessary rework, and use staff resources that make it difficult to scale up or down; and
- Tribal knowledge, or the rules residing in employees' heads, is communicated verbally or through email, and because they are not documented, may be the worst offender of all

These obstacles prevent mortgage lenders from gaining control, obscure rules transparency, and affect most organizations' ability to automate processes at scale. The impact on business is significant and varied, because marketing cannot respond quickly enough to reach newly eligible applicants and sales struggles to roll out new commissions for sellers and buyer agents. In addition, quality suffers from rework and potential penalties, while new products are often delayed, potentially missing their window of opportunity.

Decisioning Begins with Decision Logic

It's important to remember that all business rules are based on decision logic, the "if/then" conditions that ultimately determine what decision is made. Decision logic is the structured approach that determines how business rules are applied to make consistent, actionable decisions in a process or system.

Automated decisioning starts by identifying the questions necessary to make a specific decision, e.g. "what rate is the applicant eligible for?". Once this logic is identified within business rules, it can be managed more effectively and used to optimize business outcomes. Logic is created in a decision model and managed as a corporate asset, where it becomes accessible, easy to update, test, and deploy.

Decision models serve as an intermediary between business policies and their corresponding system code executed in LOS, POS, CRM or workflow engines. They capture complex, granular decision logic in a succinct, non-code, auditable format. Business users own their logic with full traceability and transparency. Decision logic is fully tested and then deployed as code for systems to execute.

Automated decisioning streamlines processes and establishes the organizational capability to support greater agility. Once decision logic is placed in decision models, it is tested, and model-generated code is deployed. Decisions are then executed by applications for specific decisions, i.e., Decision as a Service (DaaS). This entire rule update cycle can be completed within a day.

Decisioning solutions provide flexibility, enabling lenders to identify cases that are low-hanging fruit and then scale to focus on the next problem, with a small team capable of producing and managing automation. This allows costs to follow a slow upward curve while accumulating returns across multiple projects, resulting in outsized returns requiring limited resources.

Transparency is another benefit of automated decisioning, with rich and customizable governance in addition to auditable actions. Comprehensive, no-code testing ensures that error-free performant code is generated. Decision models are also technology agnostic to avoid vendor lock-in.

Case Study: Freddie Mac

The Challenge

Freddie Mac, a GSE and critical player in the mortgage ecosystem, knew they needed to improve their ability to manage their business rules to improve control, agility, and competitiveness.

The Solution

Freddie Mac transformed its traditional business rules management to modern automated decisioning methods with Sapiens Decision as its partner for its Enterprise Decisioning Solution. Together, the teams:

- Established a Decision Modeling Center of Excellence (COE) that integrated decision analysts into agile product teams across Freddie Mac's single-family lines of business
- Developed an Enterprise Decision Service for decision model deployment, integration, and execution

The Outcome

Freddie Mac achieved a **99% increase in speed to market,** an **87% reduction in costs,** with an improved overall risk profile. The organization experienced a dramatic increase in actionable insights and was able to meet its regulatory and audit requirements.

Case Study: Serco

The Challenge

Serco, a global solutions provider to the public sector, needed an eligibility verification system enabling over 10 million consumers to purchase health insurance under the Affordable Care Act. Complex, ever-changing rules led to reliance on human intervention, resulting in long processing times and frequent errors.

The Solution

Sapiens transformed Serco's thousands of existing policy pages and procedures into decision models and used existing interfaces to enable workers to make their selections. Analytics and audit reports tracked decisions and actions taken to demonstrate each consumer was processed consistently in accordance with the correct rules.

The Outcome

Consumers were very satisfied with the new user experience, which resulted in reduced processing time and case backlog. Serco was able to establish more consistent operations in accordance with established rules and policies with an impressive **75% efficiency increase** and an ability to meet SLAs during high traffic periods.

Automated Decisioning Solutions for Mortgage Origination

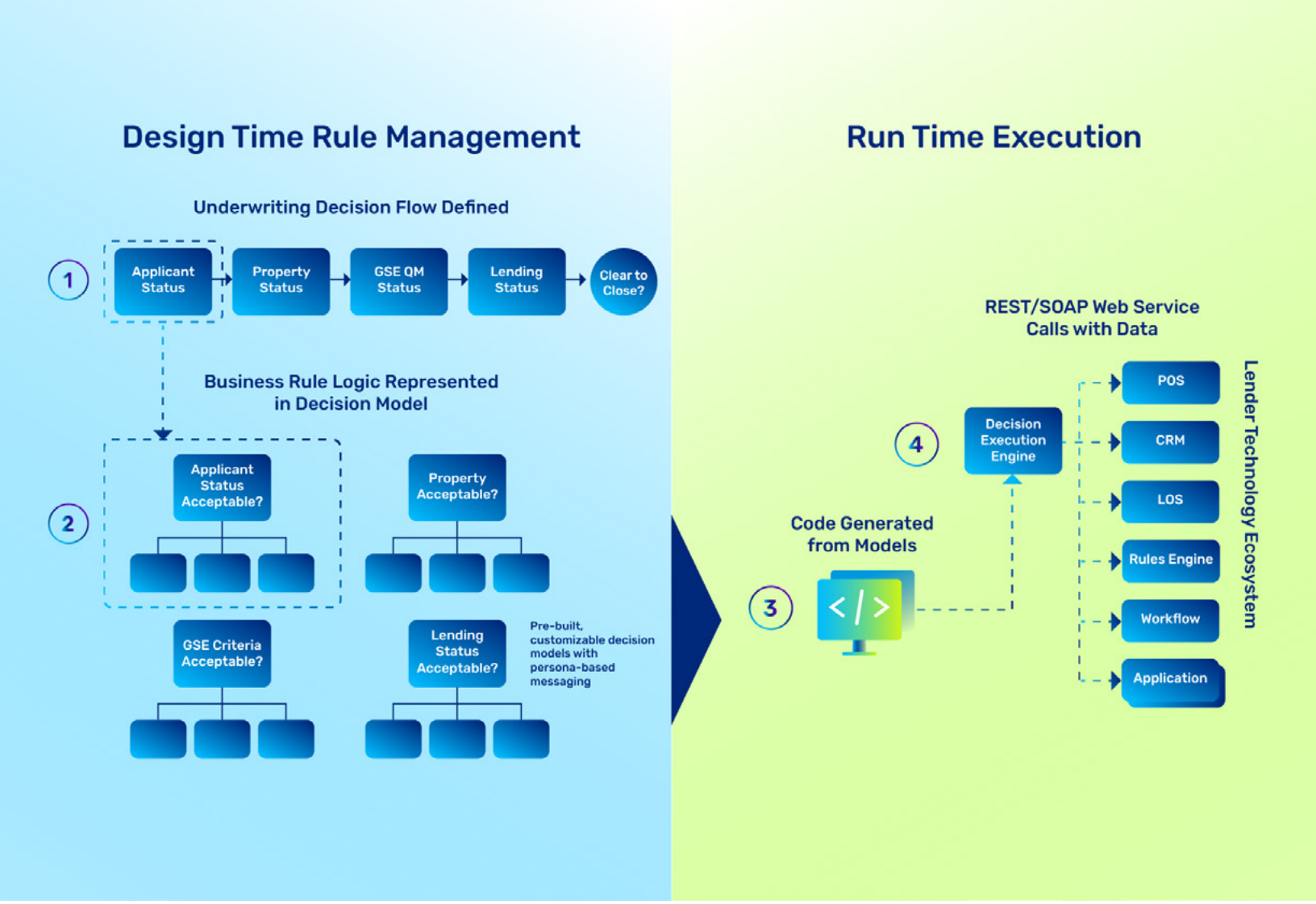
Automated decisioning solutions make the loan approval process more efficient by streamlining the "clear to close?" decision by making the decision process transparent, accessible, and easy to update. The graphic on the next page explains:

1. The decision to finalize a loan that has been approved by an underwriter (i.e. clear to close?: yes/no) is first deconstructed into a series of sub-decisions to determine the acceptability of specific conditions.

2. To make the ultimate clear to close decision, a series of user-friendly decision models are created, each answering its specific underwriting question.

3. All decision models are validated, and performant code is generated.

4. An API web service call from the LOS, POS, CRM workflow engine or other application is made to the execution engine and the result of each decision is provided.



Starting at the LOS

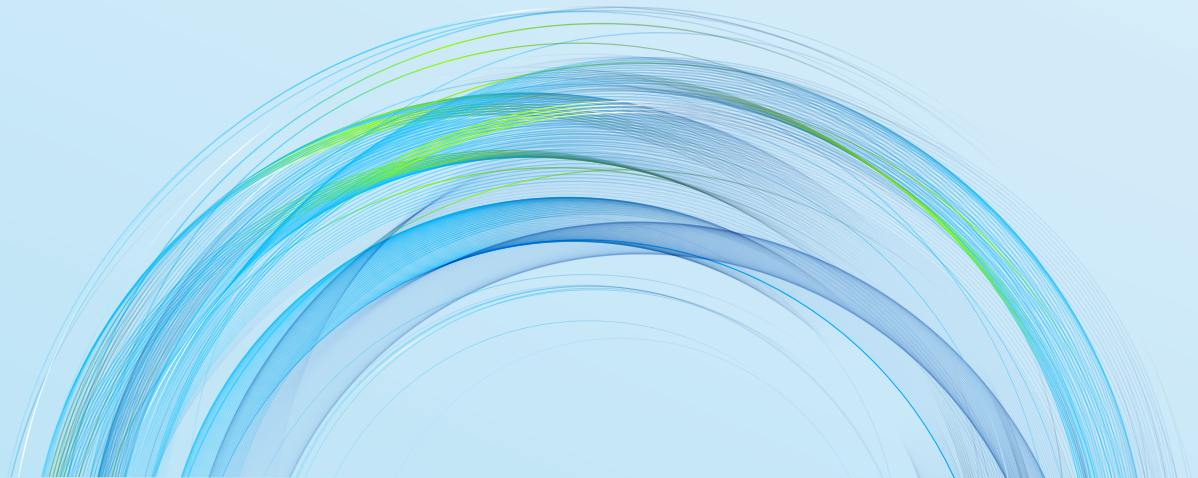
Automated decisioning for lenders typically starts with the LOS, the essential core operating system for mortgage lenders. Many lender systems are legacy platforms enabling processes that often get bogged down with slow document verification and compliance checks. Other LOS pain points include updates to decision logic within rules which may consume weeks of IT cycle time, as well as limited customization of rules and scaling issues. Keeping an LOS current with new business policies and evolving regulations is an additional challenge. Lenders need their LOS systems to be agile enough to incorporate frequent updates in business logic, reflecting business policies and regulatory updates without causing downtime or system instability.

Automated Decisioning Benefits to Loan Originators

Decisioning solutions can be deployed within weeks using pre-built “mortgage accelerator” models. Lenders maintain their current LOS system, but it’s now integrated with a decisioning platform to manage the decisions required by the LOS and other systems in loan origination.

The table below is a sampling of the benefits typically generated in mortgage origination, although decision management can be applied to a broad set of use cases across the enterprise.

Benefits to Business Top-Line Growth and Speed	Benefits to IT Efficiency and Cost Control
Marketing • Optimize outreach and act at the right strike price	**Control** • Decision logic becomes a separate business asset • Decision logic is easily managed • No code and easy integration reduce vendor reliance
Sales • Easily implement new policies for commissions for sellers and buyer agents	**Transparency** • Rich, customizable governance • Robust auditability of all actions • Comprehensive no-code testing
Underwriting • Streamline disclosures, ensure eligibility rules or conditions	**Scalability** • A small team can produce and manage significant automation • Knowledge is preserved in non-technical decision models • Normalized decision models produce high-performing code
Quality • Eliminate checklists and reduce errors that require rework	
Product Development /Loan Manufacturing • Bring new loan products to market within weeks	
Compliance & Reporting • Complete auditability and traceability	



Competing through the User Experience

Automated decisioning can be a transformative force by enabling new experiences. Borrowers increasingly expect fast, seamless, and mobile-friendly loan application processes that are efficient and engaging. For example, user experiences can be enhanced with decision automation capabilities to minimize the required inputs in a loan application.

By focusing on automating decisions across systems, personalizing the borrower experience, enhancing transparency, and reducing friction, decisioning solutions can significantly improve overall performance. Lenders can mitigate the limitations of current platforms by making the loan application process faster, simpler, and more borrower-centric, ultimately leading to higher completion rates and borrower satisfaction.

Conclusion

Mortgage systems enhanced with automated decisioning offer numerous benefits that transform the loan approval process and beyond. By increasing efficiency, improving accuracy, enhancing risk assessment, ensuring regulatory compliance, and providing scalability, decisioning solutions break down technology silos.

Decisioning solutions enable lenders to operate more effectively in an increasingly competitive financial landscape. With low code/no code technology, mortgage systems can satisfy lenders' need for consistent application of complex credit policy, faster time to market with compressed rule change cycles, and cost-effective scalability aligned with market conditions.

As the mortgage industry continues to ramp up its adoption of next-gen, AI-based solutions, leading automated decisioning solution providers are incorporating GenAI capabilities to accelerate decision modeling and optimize business outcomes. AI decisioning platforms are gaining gain traction and will shape the future of lending for years to come.

For more information on how Sapiens' Decision solutions can revolutionize and transform your mortgage process, click here.

About Sapiens

Sapiens Decision is a division of Sapiens International Corporation (NASDAQ and TASE: SPNS), a leader in digital software platforms, solutions and services. Sapiens Decision transforms how businesses are approaching change, by modernizing traditional business rules management. Our solutions enable businesses to respond to market needs through accurate and consistent enforcement of business rules and policies. Sapiens Decision isused by major corporations in banking, insurance, retail, and public sector to implement automation and drive digital transformation. sapiensdecision.com

CONTACT US

SAPIENS Decision

© Copyright Sapiens international. All Rights Reserved. November 2024