SAPIENS DECISION

Enterprise Scale Decision Management System

Growing Pressures Drive Fundamental ITChanges

Evolving regulatory requirements, competitive pressure, constant development of new products and changing customer patterns (such as the shift to digital) are forcing financial institutions to fundamentally change how they operate. IT and Operations departments are dealing with increasing demands that conventional processes and systems, based on traditional rules management practices, simply cannot meet in a timely, accurate and cost-effective manner.

Changes to policies, products and regulations can cause hundreds (if not thousands) of changes to business decisions and the associated logic. Managing business rule changes over multiple systems and geographies is leading to operational inefficiencies and a lack of transparency for financial institutions.

Operationalization of business policies typically begins with the communication of a requirement to the IT department. IT receives most requirements in unstructured narrative form which often results in iterative cycles to clarify and document the original intent of the business users. The ensuing development cycles, based on poorly communicated requirements, often result in unclear, inconsistent, or nonstandard logic across organizational systems. Using conventional methods, it is virtually impossible for business users to understand and validate that the code running in production is consistent with the original intent. With conventional methodologies proving to be time-consuming, high-risk and expensive, IT departments and their organizations are seeking an alternative solution.

Leverage a Proven Methodology & Technology

An emerging discipline that guides the standardized development of business logic (requirements), **Decision Management**, is helping firms across the financial services industry create efficiencies and achieve higher quality results at lower cost. Decision Management bridges the gap between business and IT by enabling the development of business logic in an intuitive, consistent and reusable form that is readily understood by business and technology users alike.

Decision modeling, the core of Decision Management, separates business decision logic from process models, data structures, execution environments, and technology stacks. This means that the logic can be changed with minimal impact to these other areas, enabling firms to better manage business decisions in a consistent, reusable, user-friendly model. Achieving effective decision modeling requires a model that supports the methodology. That model is **The Decision Model (TDM)**.

Like the Relational Model of data, TDM is technology agnostic; It is a model of logic, not data. Its theoretical foundation includes principles that serve to normalize business decision models with respect to their structure, their declarative nature, and their logical integrity ensuring a rigorous and robust business decision model that reduces the logic to its simplest and most stable possible form.

Sapiens DECISION combines **The Decision Model** with state of the art **enabling technology.** This combination provides both **structure** and **process** across the entire business logic development cycle, enabling IT to deliver complex programs efficiently, effectively and with dramatic cost savings and quality results-much greater than ever possible when using traditional methods.

Sapiens DECISION's measurable results

50%
cost reduction in policy operationalization

80%
improvement in data quality

60%
increase in scope of implemented rules

Technology Designed to Address Your Challenges

Sapiens DECISION bridges the gap between business users and IT and expedites the translation of business logic into high quality code that can be executed in any operational environment. It creates a central repository for business logic across the enterprise and gives IT departments the ability to rapidly deliver complex requirements in an intuitive, consistent, and reusable format. Sapiens DECISION provides complete traceability and documentation of the operationalization of business requirements from policy to code. Centralized management of business logic and visibility allow for rapid and consistent deployment to many environments, helping to realize vast cost savings and efficiencies

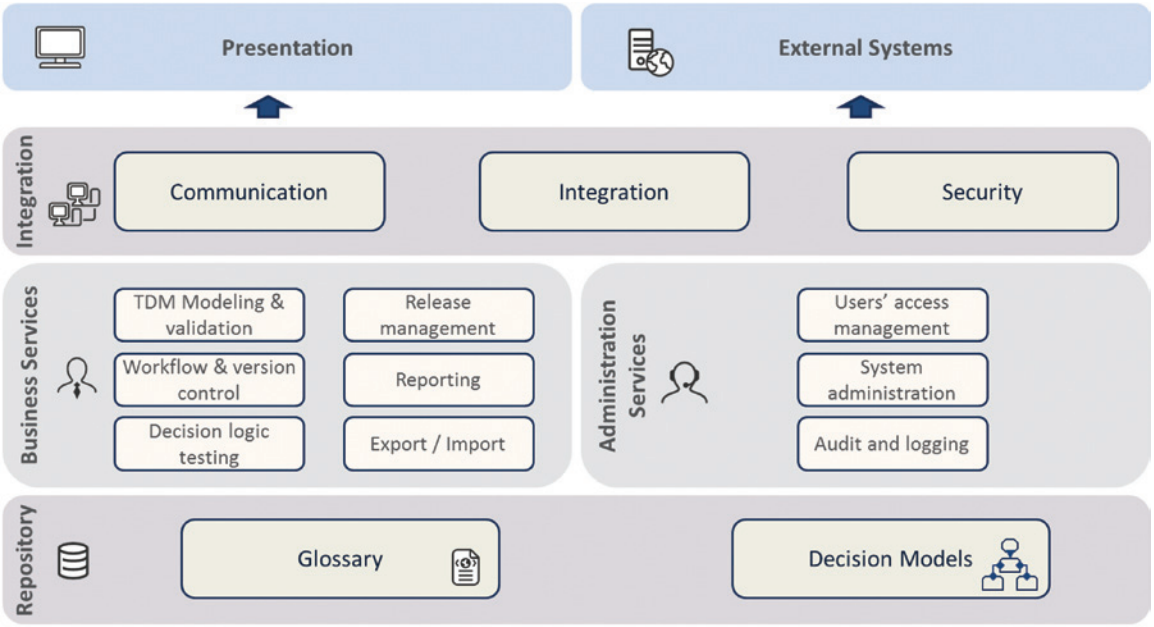
Visual Decision Model Workbench

Sapiens DECISION provides an integrated decision modeling environment built around the graphical and tabular TDM models, allowing a clear view of the business logic.

The workbench covers the full life-cycle for decision modeling and Fact Types (Data) management in a business-friendly, browser-based environment

Decision Models are graphically presented defining the business decisions that are made within a business process. By applying TDM normalization principles, the Decision Model clearly shows the business decision (Decision Views), the logical components (Rule Families), and their inferential relationships and related business logic (Rule Family tables) in an easily understood, clear and structured graphical manner.

Sapiens DECISION Logical Architecture



The Sapiens DECISION central repository contains the system configuration data and the metadata of the Glossary (Fact Types) and the Decision Models (Decision Views, Rule Family Views and Rule Family Tables).

The services provided by the system are addressed at the business and the administration levels. The business services include decision modeling based on TDM methodology, governance based on workflows and version control, decision logic validation and testing, release management for logic deployment, reporting and import/export tools. The administration services include access management, system administration and configuration, auditing and system logs.

An integration wrapper provides communication and security services, and integration adapters to external systems.

Benefits of Sapiens DECISION Technology

Introduce a common language between business and technical experts.
The Glossary Manager ensures that accuracy does not get lost in translation, as the business decision is streamlined from design and definition through to execution and optimization.

Create, automate, simulate and test business decisions for any process.
The Visual Decision Modeler provides a structured, graphical view of regulatory and business changes as they are realized and enforced throughout the institution. The platform's administrative tools are designed to support a streamlined, traceable process that is understood by all.

Gain complete visibility from policy to code.
Manage, store and trace policies, their requirements and documentation from the same accessible interface that tracks their implementation. The Sapiens DECISION's platform provides a drill down to specific components of business logic and a traceable link from each decision to its policy.

Anticipate and control results with automation and rigorous testing.
The Testing Facility generates automated test cases and detects logical inconsistencies in the preemptory stages of introducing a business change requirement. It enables business users a full trace of each decision, down to its granular details and intermediate conclusions in each step along the path of reaching a final business decision.

Sapiens DECISION & The SDLC

Sapiens DECISION's framework provides structure and process across the entire business logic development cycle, supporting both the Waterfall and the Agile approaches – from initial planning and business requirements capture, to detailed business and technical design and deployment, as well as final testing and acceptance. The framework allows reuse of The Decision Model components and test cases, enabling the "build once, use many" approach.

Plan

Sapiens DECISION provides a visual representation of existing decision models, allowing a clear view of related business logic. This view enables impact analysis and assessment of the overall project scope, as well as the ability to easily identify the components that need to be changed and/or created. Sapiens DECISION analyzes the Business Change Requests and associated text to assess the business impact and identify any affected logical entities.

Design

Sapiens DECISION enables business requirements to be clearly and unambiguously expressed through the use of structured decision models. The decision models are authored using Sapiens DECISION's centralized glossary of business terms, using a fully governed workflow that provides traceability of performed changes.

The innovative whiteboard concept allows task owners to develop the business logic structures necessary for each part of the change request, utilizing the central glossary of business entities and terms. This avoids conflict in the work, and enforces governance. The design work is guided by the rigorous principles of The Decision Model allowing logic validation and immediate business decision testing. This approach allows the business logic to be validated, and decisions tested, at the business requirements planning stage ensuring accuracy, completeness, and consistency.

Test

Rather than perform logic validation and system testing at the end of the development phase, Sapiens DECISION shifts testing of logic consistency and completeness upfront into the business requirements stage. Test cases can be automatically generated and used to perform unit testing during the business requirements stage and also exported for system testing as a part of the test stage of the development life cycle. This approach allows problems and errors to be discovered very early on, thereby minimizing risk and reducing unnecessary costs while greatly simplifying and accelerating the final system testing performed by the technical teams upon deployment.

Build

Sapiens DECISION automatically generates code for one or more designated technologies and deploys to the operational systems. This dramatically shrinks the build time cycle.