

WHITEPAPER

Three Ways a Business Rules Engine Can Drive Transformation in the Insurance Industry



Innovations in technology, software and data management enable transformations in the insurance industry. Digital first startups are pushing the limits of cutting edge technology, as they race to capture unique opportunities. Insurers across the industry are beginning to reassess their role of delivering commoditized products, and also reimagining their value proposition - providing solutions to reduce risk and manage loss and improve customer service.

The use of Artificial Intelligence (AI) and Internet of Things (IoT) are being leveraged to measure risk, to customize products and to tailor experiences. Cloud-native technology render these digital experiences much more robust and nimble. But while new technology drives new innovations, it fails without the bond of business logic.

A rules-based business process automation platform (BPA) presents an ideal solution to address issues throughout the industry and across the value chain. This type of platform enables dynamic rules to drive workflows and support business logic and the processes that drive automations. By integrating rules into automations they become much smarter and flexible making firms more nimble and resilient.

The flexibility of a rule-based BPA platform can provide value to players throughout the insurance industry but different types of firms are implementing it in different ways. New entrants require a more robust digital platform to quickly capture market opportunities. And firmly established players need to upgrade existing investments to compete in a new digital ecosystem.

A RULE-BASED BUSINESS PROCESS AUTOMATION PLATFORM CAN BE IMPLEMENTED IN 3 WAYS

Insurance providers can take three approaches to implementing a rules-based business automation platform like Decisions. These approaches are distinct strategies to solve specific problems but the flexibility of the platform enables architects to deploy hybrid strategies that leverage the entire spectrum of functionality.

- 1 The platform can be used to develop the entire software stack. The no-code capabilities, robust logic and front end portal provide all the functionality required to bring a new insurance offering to market quickly. This approach typically appeals to smaller start-ups looking to swiftly address an underserved market segment. While the platform is powerful enough for developers to create multiple applications, not all applications have to be built in Decisions.
- 2 The platform can be implemented as an orchestration and integration layer that ties together with existing systems and manages data flow across apps and databases. Typically mid-market firms that operate a variety of systems are running Decisions in this way.
- 3 The platform can run as a stand alone rules engine that manages rule sets that are accessible by multiple applications. This type of implementation adds the most value to multinational firms that operate an extensive portfolio of systems with thousands of business rules.

The fact that Decisions can be implemented in the same network as legacy systems enables greater security compared to implementing a platform in the cloud.

Insurance companies have their own unique processes and systems. Decisions is a flexible enough option to be configured to address any situation.

1 Implement Rules-based BPM as a No-code App Development Platform

Small insurtech start-ups are breaking into the insurance industry to address under-served market segments. As these entrepreneurs write unique policies to capture business that is unattractive to larger firms, they are realizing that off the shelf insurance management software suites do not support their innovative businesses. Packaged systems typically only do 80% of the job, leaving the last 20% (usually the hardest) for entrepreneurs to figure out on their own. The flexibility and breadth of the Decisions platform enables these upstarts to build their own rules and processes to meet 100% of their customized requirements. The platform also includes a front-end portal to engage with customers and stakeholders. Organizations can build complete applications with no developer skills and automate processes like delivering customized quotes through an HTML web portal. Managing operations and logic from a single platform can save money and be much easier to manage.

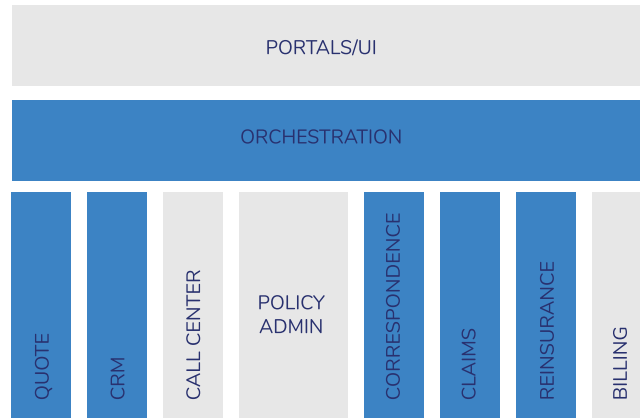
While the platform is robust enough to do it all, some organizations may already have off the shelf software in place for more generic processes like billing or policy administration. While rules engines are applicable across all systems, one area where they can provide the greatest ROI is as a quoting engine. The demand for customized products, and for the ability for rules to parse products and assign pricing, is helping providers deliver quotes faster.

The Decisions platform is flexible enough to be configured so developers can build applications that provide the functionality required while integrating with other systems for the rest.

Decisions has worked with insurtech firms that have built applications and business logic to address certain business functions including:

- **Quoting** - Leverage rules to create an automated quoting app.
- **Customer Relationship Management (CRM)** - Use rules to personalize engagements with your customers.
- **Correspondence** - Automate the process of exchanging messaging with clients
- **Claims** - Streamline the claims process with workflows and rules
- **Reinsurance** - Manage reinsurance contracts

Decisions as the entire stack



2 Implement Rules-based BPM as an Orchestration Engine That Integrates Multiple Systems

Firmly entrenched insurance organizations that continue to evolve over the years have implemented various different systems. These systems may straddle legacy systems as well as more contemporary software-as-a-service (SaaS) offerings.

However, getting data in and out of these systems efficiently can be very difficult. This has led to the growth of manual workarounds that increase bottlenecks, and causes errors that result in lost productivity.

One of the biggest challenges for insurance firms is working with legacy systems. Getting data in and out of these systems efficiently can be very difficult. This proliferates manual workarounds that increase bottlenecks, and causes errors that result in lost productivity.

Legacy systems make it challenging to meet customer expectations for seamless and fast service. Entire processes can not be automated as some steps will require data to be manually keyed into older systems. Increasingly high customer expectations require organizations to streamline processing, by eliminating human bottlenecks caused by manual entries.

Robotics Processing Automation (RPA) solutions can solve some of these problems, but they are unable to automate more complex processes. Anything with more than five steps is too complicated for an RPA. Ripping out the entire legacy system and replacing it with a new modern architecture can enable straight-through processing, but can also be disruptive, costly and risky.

A rules-based business process automation platform can solve the challenges presented by legacy systems. A powerful rules engine coupled with robust integration capabilities can function as a mesh that supports automation across systems.

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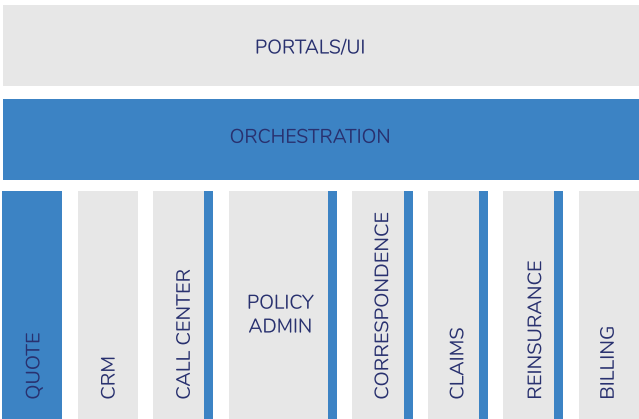
Another challenge facing more established insurance providers is their aging workforce. With extensive expertise and knowledge locked in the heads of these experts, once they move on it will be gone forever if not passed on. Installing a process automation platform captures this knowledge in the form of business rules.

The most common way that a platform like Decisions can add value to existing systems is as an orchestration layer. Typically mid-market providers are able to get the most value out of an implementation like this.

For a number of years, software architectures have become increasingly modular to be more robust and resilient. Leveraging a rules engine as an orchestration layer borrows the same concept. Business rules and logic can be separated from apps and data to enable a more robust digital experience.

Logic and data from multiple systems can be aggregated and organized so it is available as a service to the front-end user interface. Leveraging Decisions as an orchestration layer renders data, rules and services available as APIs, and renders reports and forms available as iFrames. With all the business logic available as a service, the user interface and front end technology can be completely controlled by insurance firms desiring a uniform and custom look and feel to their customers.

Decisions as an orchestration layer



The myriad of different systems performing a variety of different functions within an insurance operation are often unable to talk to each other and thus cannot automate. Consolidating data from these systems into a single platform such as Decisions supports automation. A number of different approaches are available to bring data into the Decisions platform from all types of systems, both modern and legacy systems. The approaches include:

- Native integrations with modules
- APIs
- Loading flat files with Exact Transform and Load processes
- Direct database calls
- Agents

INTEGRATING WITH MODERN SYSTEMS

There are a couple of ways to integrate with modern software systems depending on how tight the relationship needs to be and how well it needs to perform.

Within the Decisions platform are a number of pre-built modules that connect natively with popular software packages and web services. With these types of integrations, data types that are native to the targeted software package can be manipulated within Decisions. APIs and connectors have already been built so all that is required is to drag a module into the design tool and you have access to data types native to target systems.

Modules used regularly in the insurance space

Customer Relationship Management Microsoft Dynamics CRM Salesforce	Correspondence Sharepoint USPS DocuSign	Policy Administration Microsoft Dynamics	Call Center Twilio Plivo
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If a module is not available, and users want native integration with particular systems, developers can leverage an SDK to create new modules.

Where native integration is not necessary, Decisions offers easy ways to call APIs to access modern web services. The platform can support APIs in REST, Json, XML, HTML and SOAP.

ACCESSING LEGACY SYSTEMS

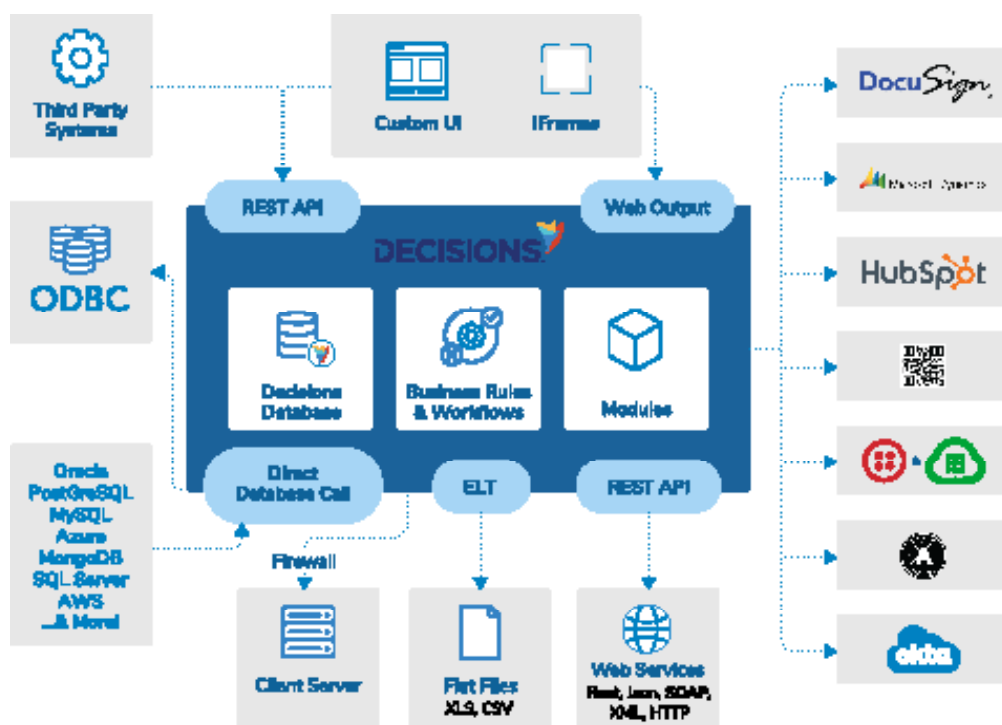
In situations where modern web services are not available, the Decisions platform supports three approaches to accessing data within legacy systems.

The first is a direct database call. The Decisions platform has the ability to directly query a wide variety of database types. Whether to an Oracle database, Amazon Web Services (AWS), an SQL Server, or PostgreSQL, Decisions can build a data call with no coding required.

The second way is through importing flat files and running an Extract Transform Load (ETL) operation. The same rules engine that manages business rules can also manage ETL rules. All that is required is to import an XLS or CSV file into the Decisions platform and set rules to clean and load the data into the Decisions database.

Finally, the Decisions platform includes apps, also referred to as agents. These agents can be loaded into client-server environments to provide a direct connection to the Decisions server through firewalls.

Example of a rules-engine at the center



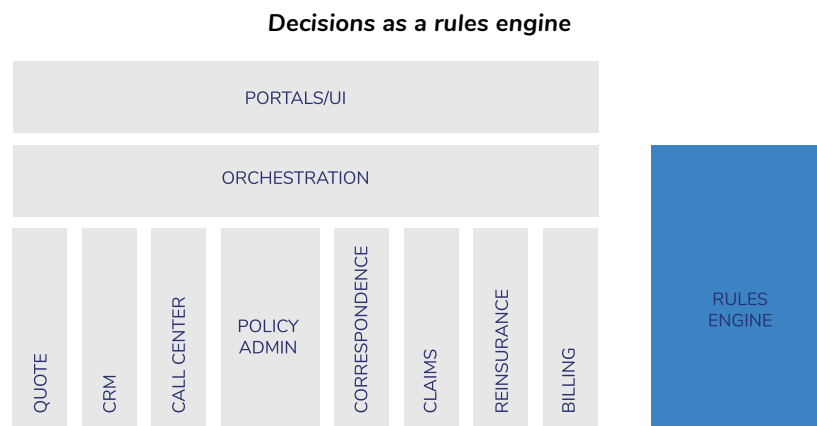
3 Implement Rules-based BPM as a Stand Alone Rules Engine

Large multinational insurance companies are saddled with legacy systems like many mid-market firm , but their problems are more complicated. They may operate hundreds of systems that span markets and geographies all requiring thousands of rules. In many cases these rules are duplicates and a change to a single rule requires the same change across all systems that rely on that rule.

With the complexity of these systems, consolidating data and logic in a single platform and orchestrating from it often proves cumbersome. A stand alone rules engine can manage rules in a single place while data remains in the system of record making it more resilient.

The rules engine that powers the Decisions rule-based automation platform can be deployed as a stand-alone system. This approach enables large organizations to consolidate all their business rules in a single place. As rules change, they don't need to be changed across multiple systems, but can be adjusted in a single rules repository.

With a few simple steps, any rule or data element within Decisions can be exposed as a REST API. This enables a myriad of applications and systems that rely on these rules to make an API call to access the specific logic they need.



Every insurance company has different processes and systems, which serve as competitive advantages. While each company has its own unique approach and resources, customers still expect an ever-increasing level of service. Digital start-ups need to get to market quickly to capitalize on the changing market while established players have to navigate legacy systems and siloed applications to meet expectations. The flexibility of the Decisions rule-based BPA platform is making it easier for insurance companies to meet the requirements of today's digital customers. The flexibility of the platform enables insurance companies to implement the platform in a way that fits with existing systems and solves their most pressing challenges.



With the Decisions no-code automation platform you can fix the customer experience, modernize legacy systems, ensure regulatory compliance, and automate anything in your business.

We help people who know what to do, get it done, and change their world. See how at decisions.com.

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