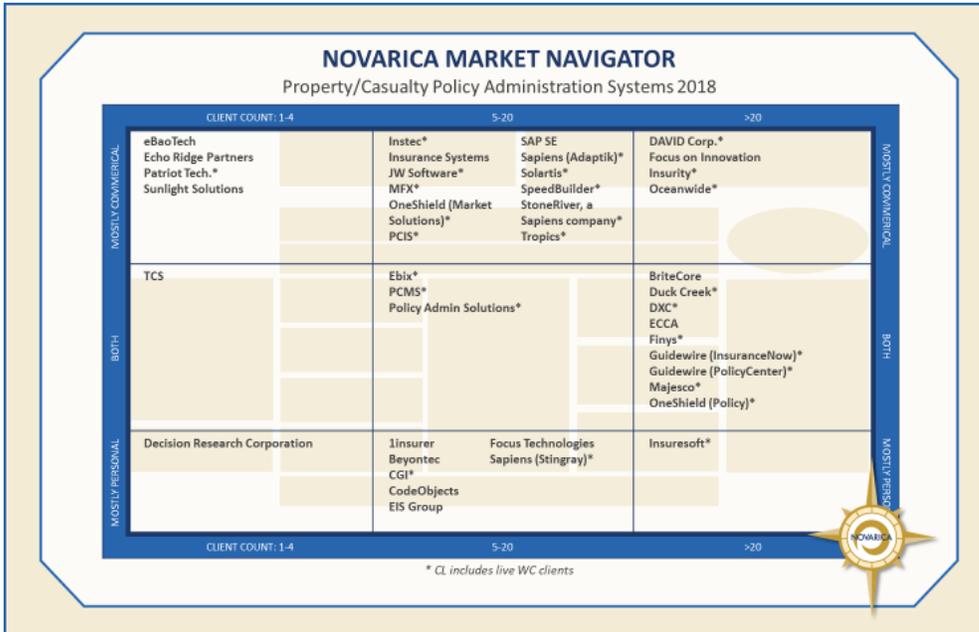


# PROPERTY/CASUALTY POLICY ADMINISTRATION SYSTEMS

FEBRUARY 2018  
Authorized Excerpt



## SUMMARY

This authorized excerpt contains content from a Novarica Market Navigator report that provides an overview of the available policy administration systems and suites for US property/casualty insurers. The report contains profiles of each of 42 vendor solutions, summarizing the vendor organization, technology used, differentiators, client base, lines of business supported, deployment options, implementation approaches, upgrades/enhancements, and key functionality.

This excerpt includes the profiles of Sapiens and StoneRiver, a Sapiens Company. The full report includes profiles of all providers listed in the graphic above.

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## INTRODUCTION

### About this Report

This report is designed to provide an overview of the current solution provider marketplace for policy administration system (PAS) solutions for property/casualty (P/C) insurers. It is designed to assist insurers in drawing up their shortlists of potential providers based on vendor market position and offering details.

Novarica Market Navigator™ reports do not provide subjective analysis on each vendor's solution. They are based on factual responses to a universal RFI distributed by Novarica and subsequent follow-ups with the vendors to validate and confirm responses.

The RFI covers details of organization, technology stack, client base, and key functionality. Profiles also include a summary of key differentiators, lines of business supported, deployment options, implementation approaches, and how upgrades/enhancements are handled. Where available, screenshots of the products were provided by the vendor.

These reports do not render judgment, since the fit between a potential provider and an insurer will be determined by the specific situation and needs of that insurer. Novarica provides these types of advisory consultations to more than 100 insurer clients through its retained advisory services.

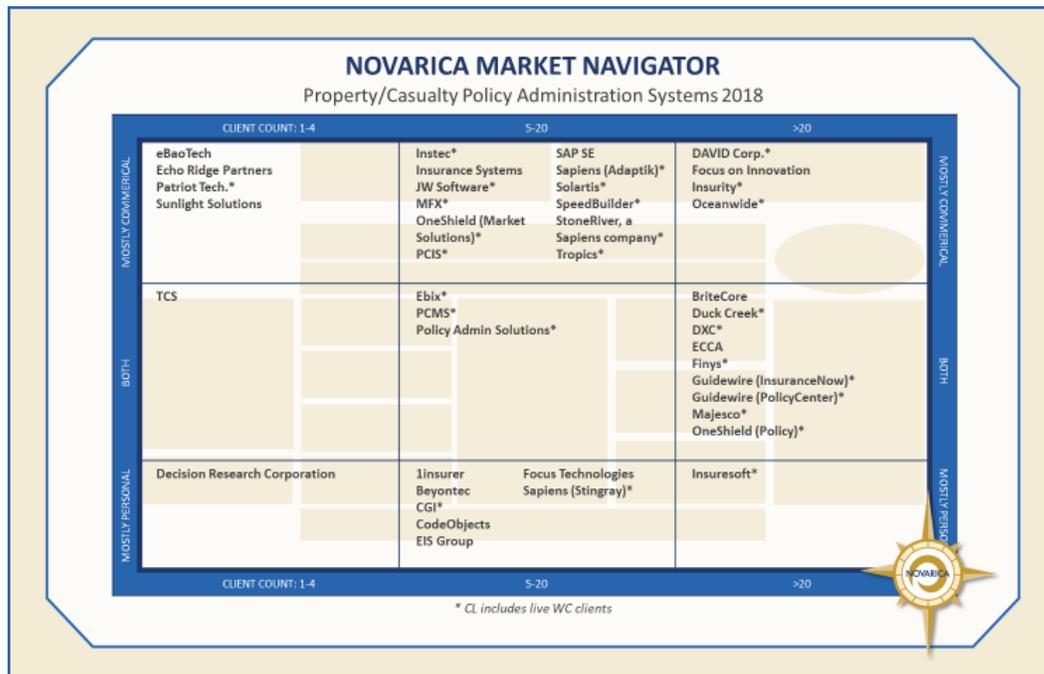
## Novarica Market Navigator Graphic

The Novarica Market Navigator Graphic is designed to provide an overview of the vendors in a particular market space.

The Novarica Market Navigator map graphic provides a visual mapping of solution providers positioned in a three-by-three matrix that indicates the type of insurer they commonly serve and the number of live clients. Within each section of the map, companies are listed alphabetically. Further details are available in the profiles of each solution.

In this map, solution providers that serve primarily clients who use the solution mostly in commercial lines are represented in the top row, those that primarily serve clients who use the solution mostly in personal lines in the bottom row, and those that serve both sectors essentially equally are in the center row. Those in the left column have the smallest number of live clients, while those in the right column have the largest. Companies marked with an asterisk currently have live workers' comp clients.

Figure 1: Property/Casualty Policy Administration Systems 2018



The background of the map is a watermark of the Novarica Core Systems Map, which is included for branding purposes.

## MARKET OVERVIEW

Novarica's surveys of P/C carrier CIOs, conversations with carriers and vendors, and third-party research all indicate that carriers continue to aggressively seek to replace their existing policy administration systems or, in some cases, to add a new system to the mix. While some surveys show BI/Analytics topping core PAS replacement/enhancement as the number one priority, those projects tend to be smaller in size, and the majority of IT budgets remain dedicated to PAS and the surrounding core components. The P/C policy administration market continues to flourish for those vendors with in-demand systems and reflects a number of trends (most of which remain unchanged from last year):

- The need to improve product development speed—and enhance product capability—to pursue new opportunities (e.g., excess and surplus lines, workers' comp), or to accommodate market demands (e.g., micro-rating, direct-to-consumer), especially as carriers continue to engage in M&A.
- The need to improve product development flexibility to enter profitable new niches as the commercial market continues to harden and the economy continues to improve, and as the personal auto market looks to enter other areas in preparation for external disruption.
- A desire to reduce the sizeable costs associated with keeping legacy systems on aging platforms running. Many carriers report that more than 75% of their IT budgets are associated with "keeping the lights on" in these environments, leaving very little capacity for new product innovation or improving the capability of existing products.
- A desire to find more cost-effective ways to support the ongoing operation and management of core-systems capabilities. In some cases, this may mean a move away from systems that require customization for enhanced functionality or capability and toward systems that use configuration tools to achieve such enhancements. In all instances, the objective is to reduce long-term total cost of ownership.
- Increased data accessibility demands as business intelligence and data analytics become a significant part of insurers' strategic objectives. In order to better set rates/pricing, reduce fraudulent claims, and generate other predictive models, core system data must be available for analysis, whether within the system or via export and transformation.

In addition to improving customer and distributor service, another key factor is the desire to attract and retain not just top producers, but also the new generation of producers who won't stand for the challenges presented by legacy solutions. This is critical for either attracting captive agents or for increasing wallet share with independent agents. For some carriers, being able to offer policies (or at least quotes) directly to the consumer is another driving factor, including the ability to provide service via mobile devices. Attracting and retaining IT staff, and even front- and back-office employees, is also important as today's job seekers increasingly lack the skills—or the desire—to work on systems over 30 years old.

The direct sellers—and other industries—have set a high bar for customer expectations of online self service for quotes, policy changes, claims management, mobile self service, and much more.

This has led to a cost-of-doing-business push for customer-facing technology in personal lines—meaning better customer and agent experience through improved usability and 24/7 accessibility. On the commercial side, the rise of online self service across many consumer industries has raised users' general expectations, forcing carriers to provide certain online capabilities, even for lines of business that seemed safe from such requirements just a few years ago. Inflexible legacy policy administration systems can prevent insurers from being able to take advantage of new opportunities and being able to meet customer and agent expectations.

## **M&A and Restructuring Activity in the Space**

One disruptive market trend to note is the accelerated M&A activity of the last few years. P/C insurers have shown a preference for full suite solutions for many years now. With all the vendor consolidation, there are very few offerings that don't at least provide policy, billing, and claims. Along these lines, there have been two types of merger activity insurers should note.

The first trend is a restructuring of systems both on a corporate and architectural level. Larger vendors have been acquiring additional core systems for their portfolio (e.g., Guidewire acquiring ISCS, Insurity acquiring Oceanwide and Tropics, Majesco acquiring Cover-All, Sapiens acquiring Maximum Processing, StoneRiver, and Adaptik) with varying approaches to how the new offerings are either maintained independently or integrated into the core offering.

Several vendors (including some of the above) have merged multiple suites into a single offering—where they had two profiles in previous reports, they may have only one this year. And in a different yet related phenomenon, there are vendors in the midst of a major architectural restructuring who are sitting out this year's report until they have re-released and begun publicly marketing their updated system.

The second M&A/restructuring trend is the continued expansion of what is considered part of the core suite, most notably with acquisitions intended to build out the portal offering (e.g., Duck Creek acquiring AgencyPort, Guidewire acquiring FirstBest) and the BI/analytics components (e.g., Guidewire acquiring EagleEye, Duck Creek acquiring Yodil, Insurity acquiring Valen). Most insurers know that just because a vendor has a broad set of components in its portfolio, it doesn't always offer a truly integrated suite. But the promise of working with a single vendor with a stable financial backing is still a benefit to many.

## EMERGING TECHNOLOGY AND CORE SYSTEMS

### Software as a Service

An increasing number of insurers are willing to consider or implement core PAS systems in the cloud via a Software-as-a-Service (SaaS) model. While cloud adoption for ancillary systems has continued to rise in the insurance industry, only within the last few years has this trend expanded to include new core systems in any significant percentage. With some high-profile cases of Tier 1 insurers moving to a cloud model, these numbers are expected to increase.

Although insurers may not be moving their core books from mainframe to the cloud, within five years Novarica expects to see 50% of insurers licensing a PAS for new books of business to choose a cloud-based or partially cloud-based approach. The line between hosting and SaaS has grown increasingly blurry, with many vendors and insurers using different but overlapping definitions. While SaaS typically refers to a system that is provided both as a cloud-available solution and with an alternative licensing model, for the purposes of this report managed hosting and SaaS have been grouped together.

### InsureTech

Most insurers are aware of or participating in the InsureTech investment boom led primarily out of Silicon Valley (with outposts in insurance hubs like Des Moines and New York). These startups include technology offerings that insurers might want to license and leverage as well as new industry entrants that may end up becoming competitors or partners to incumbents.

Regardless of these InsureTech developments, insurer IT budgets are still primarily dedicated to the maintenance, modernization, and replacement of core systems. And the reality is that this is how it should be. CIOs should not expect a core system to encompass all available emerging technology within its borders. Rather, they should consider how a new system's architecture will provide the flexibility and agility needed to take advantage of future technology and allow integration with future partners. They should know up front the plan for upgrades and modernization in order to keep any core system up to date.

In a few cases, startups in the InsureTech space are themselves selling core systems. Novarica does not include vendors in this report unless they have production clients, meaning some startups that are hoping to enter the field were not eligible. With any luck, next year they will make the cut. In the meantime, insurers interested in discussing startup core system vendors should reach out to Novarica directly.

### Headless Core Systems and Microservices

A "headless" implementation means implementing new digital insurance products that leverage underlying commercially available core systems with a carrier's own user interface built on top of it. This reduces the core system to a set of services and business logic, rather than relying on it for the end-user environment. Carriers looking to provide a differentiated user experience are realizing that headless implementations on top of modern core systems can give them speed to market and reduce the work required to implement self-service portals.

Some solution providers are building out microservices to enable this flexibility, improve reuse within their own solution set, and address concerns voiced by carriers over the difficulty of accessing functions with legacy systems. Few solution providers have a full set of microservices, but the granularity and availability of services is rapidly increasing. This modern architecture approach will bring a future generation of core system implementations flexibility and longevity as platforms.

As with most architecture innovations, the insurance industry will take some time to see this as a necessity rather than a nice-to-have when making core system selections. Most insurers judge core systems based on capabilities and look for the underlying technology to meet a minimum bar of acceptability. It will be five to ten years before microservices and support for headless implementations become part of that "minimum bar" for the bulk of insurers, giving other vendors time to catch up.

## **PCI Regulated Data vs. Tokenized Integration**

In past Policy Administration Suite Market Navigators, Novarica asked vendors whether their system maintained native PCI compliance allowing carriers to store credit card or banking account numbers in the system. However, PCI compliance is judged by the weakest link in an environment (e.g., the HVAC systems that allowed the Target point-of-sale system breach) and since most insurers themselves do not have a PCI-compliant environment, the compliance of the core system is irrelevant. Once integrated with that core system, the entire insurer infrastructure would need to be PCI certified. For insurers who do maintain PCI compliance, the deployment of a new core system would require updated attestation documentation to reflect the change.

It is Novarica's view that insurers should not capture, transfer, or store any PCI-regulated data.

Instead of capturing, transferring, or storing PCI-regulated data such as credit card and bank account numbers, insurers should integrate with third-party banks and credit institutions who specialize in these transactions. These integrations typically work via a token-based approach, allowing the insurer to maintain a history without ever touching the PCI-regulated data itself (and therefore avoiding the need for certification and audit).

In this report, Novarica has instead asked insurers whether or not they pre-integrate to third-party services for this token-based approach. A minority of insurers have specific reasons to deal directly with PCI-regulated data, and they have the staff on hand with the knowledge to do so. All other insurers should be skeptical of any vendor who promises a secure environment for those transactions rather than the use of tokenized integrations.

## KEY COMPONENTS

A well-developed policy administration system should integrate downstream and back-office systems to provide effective support for the management of both contracts and financial results, and at the same time provide interface points for all involved stakeholders (e.g., home office employees, sales partners, and premium paying customers) to participate in the management of the policy life cycle. The system is the foundation for all other processing and is central to the effective and controlled management of a block of business for a carrier. The platform may support either single or multiple lines of business. It may also interface with single or multiple distribution channels.

The PAS itself may offer a suite of capabilities, or it may be designed to interface with a variety of solutions providing other capabilities that are delivered by unrelated vendors. For example, if the PAS does not include robust modules to handle contact and document management, it should easily integrate with other applications that provide the requisite functionality. Tools providing easy access and navigation to the traditional functions handled by both the sales organization and home office associates are standard elements for PAS solutions.

Over the years, what the industry considers a complete policy administration system has expanded to include much of what was previously licensed or built as ancillary functions. Very few vendors covered in this report license a stand-alone policy administration component, though whether the additional components are integral pieces of the suite or stand-alone offerings that are sold and integrated separately varies by vendor. Novarica publishes separate market navigator reports to focus on the details of these individual components, while this report covers the entire suite that falls under the PAS umbrella.

Key policy administration system features and components surveyed by Novarica include the following:

### **Core Policy Administration**

This function handles all core aspects of policy management: account clearance, new business, policy change, renewals, non-renewal, cancellations, cancel/rewrite, reinstate, and premium audit. Core policy admin often handles customer or account management as well as automated rule application and workflow management.

### **Rating Functions**

Rating engines are rule- and table-based components that assess the submission risk variables and coverage selections to determine the policy premium. Most policy administration offerings contain some level of rating engine, though the level of complexity varies. Alternatively, policy administration systems can typically be integrated with stand-alone rating engines, and some vendors will have pre-existing integrations available with partners.

### **Underwriter Workbench Functions**

Solutions typically provide some form of underwriter workbench that may allow for the management of work objects and an integrated workflow that provides transparency into work items and any need(s) for additional information.

### **Document Functions**

Many policy admin systems include the ability to generate documents, using customized templates managed by administrators that at run-time are merged with policy or customer data. This is either handled in an ad hoc capacity for specific customer communication or in a batch fashion for mass printing of statements. Those without such features will either integrate to third-party document generation/customer communication management tools or provide interfaces to do so.

### **Agent Portal Functions**

An agent portal provides agent self-service capabilities and should integrate with policy administration systems and often with third-party data services and enterprise document management solutions. A robust agent portal allows agents to get quotes/submit new business, track status/manage changes, communicate/collaborate with underwriters, and view reports about commissions/transaction histories. Some vendors offer agent-facing capabilities through independent modules that were developed specifically for the agent user, while other vendors expose their core system screens to their agents and limit access with role-based security.

### **Consumer Portal Functions**

While not as common as agent portal functions, a consumer/policyholder portal is now often included as part of a core system suite. The platform for such a portal is typically the same one used for the agent portal, making use of role-based views to present a limited navigation and restriction from utilizing many of the transactional functions. The most common features of a consumer portal are EBPP (electronic bill payment and presentment), digital ID cards, and the ability to download policy terms.

### **Reinsurance Functions**

A facility which allows a carrier to manage both its own internal retention limits on particular types or sizes of risks and subsequently appropriately allocate the specified risk between the primary carrier and others for which appropriate reinsurance treaties are in place.

### **Business Intelligence Functions**

Insurers have been putting increased investment into their business intelligence and data analytics tool sets, and a subset of this functionality is making its way into PAS solutions either as embedded within the PAS or included as a modular or stand-alone component. Vendors without this functionality built in still need to have an integration story for moving data to a warehouse or other third-party analytics tool, and many insurers will choose to use their own business intelligence environment instead of internal vendor offerings.

### **Billing Functions**

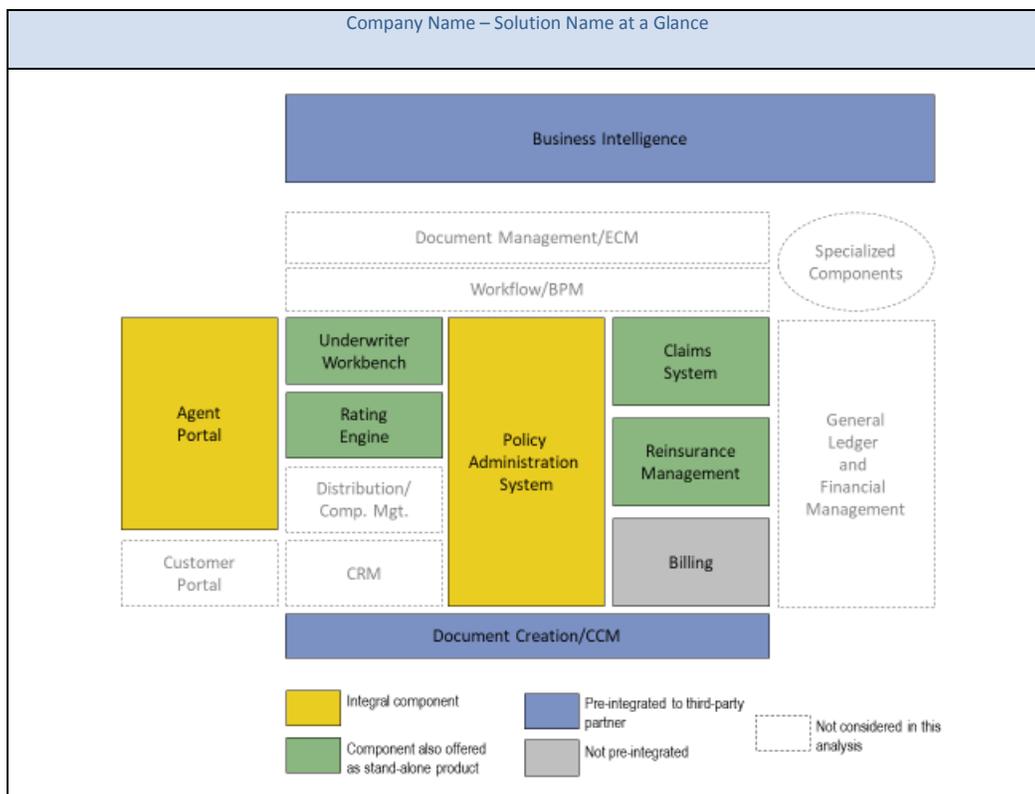
A capability which allows carriers to properly calculate, prepare, and present billing information to policy- or contract-holders, ensuring that the correct payment options and timeframes are made available to them. In addition, the billing platform offers a significant touchpoint between carriers and policyholders, potentially representing a significant channel of communication for retention and other customer management activities.

### Claims Functions

A platform that allows for the management of payments of various types during the life cycle of a typical insurance contract. These platforms ensure that the carrier is meeting the provisions of the contract as well as providing critical information that can be used to properly manage both fraud detection and the overall loss profiles of a book of business. It can also be important for managing compliance-related issues (e.g., unclaimed property regulations).

### At a Glance

This version of our Novarica Core Systems Map provides a color-coded view for each solution based on whether the specific features analyzed for this report are included as components integral to the system, integral components that are also offered as stand-alone products, components pre-integrated to a third-party partner, or not pre-integrated to the solution.



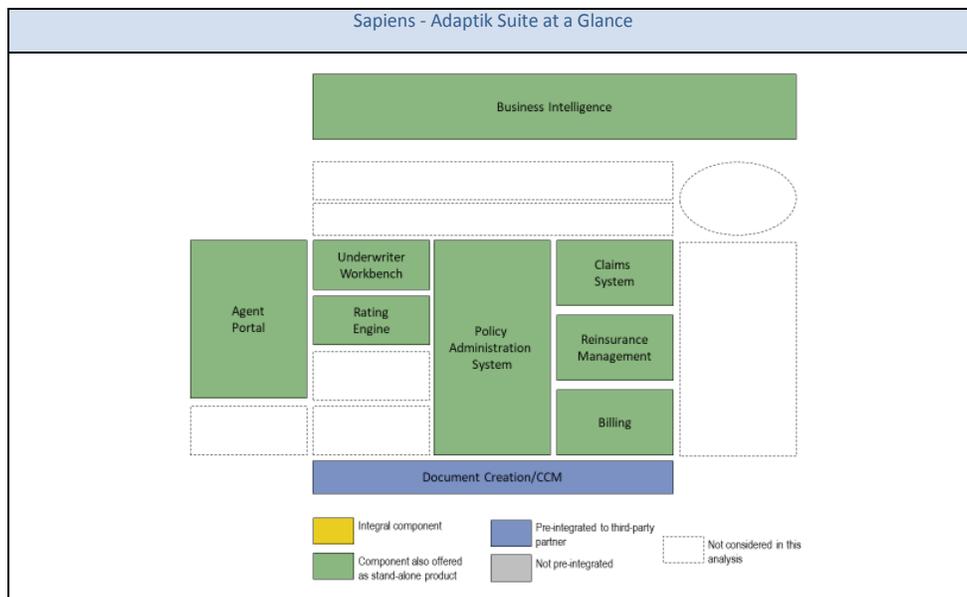
The specific features analyzed for this report that fall under the PAS umbrella include core policy features, rating, underwriter workbench, document creation, agent portal, reinsurance, business intelligence, billing, and claims components. Other components that may be part of solution suites—document management, CRM, etc.—have been dotted in outline on the core systems map and are not considered in this analysis. Please note that several of the vendors in this report also offer components in these areas as part of their suites.

For more details about any of the solutions, please be sure to read the entire profile, which includes additional information and explanation on functionality.

## SAPIENS - ADAPTIK SUITE

### Executive Summary

- Sapiens is a publicly traded company headquartered in Israel with sales and professional services personnel located throughout the North American, European, Middle Eastern, African, and Asia-Pacific regions. Sapiens provides software and services to the insurance industry. Sapiens acquired the Adaptik Suite in January 2018. Sapiens has over 2,500 employees worldwide, with over 300 BAs, PMs, developers, and QA members. The company's annual revenue is in the range of \$100M-\$250M.
- The Adaptik Suite is a suite of solutions that currently includes core policy features, rating, underwriter workbench, agent portal, billing, claims, and reinsurance components.
- It currently has seven live US/Canadian insurer clients using the suite, most of which are larger companies (over \$1B) using the solution in commercial lines, with some personal.
- Publicly announced clients include Travelers, Starr, Arch, Country Financial, and Canal Insurance.
- Live lines of business include many of the personal and commercial lines queried by Novarica, including personal auto, personal umbrella, commercial property, general liability, BOP, commercial crime, commercial auto, E&O/D&O, professional liability (including medical malpractice), commercial package, specialty, and workers' comp.
- The solution is browser-based for all user interface functions. It is written in Java.
- Configuration for insurance products, screens, workflows, rules, and interfaces is via tools intended for IT analysts or BAs.
- Implementation is available through the company's own resources. On-premise and hosted on AWS deployment options are available. A SaaS delivery model is hosted with a subscription license that includes maintenance and upgrades.
- The company reports that average time to go-live is nine months or less and that the average cost for the middle 50% of the client base is \$1M-\$2M.



## Lines of Business Supported

<b>Personal auto:</b>	Live clients offering this product in 10-49 US states
<b>Homeowners:</b>	Clients currently in implementation for this line/product
<b>Personal umbrella:</b>	Live clients offering this product in 2-9 US states
<b>Dwelling fire:</b>	Solution is designed to support, but no clients live or implementing
<b>Boatowners:</b>	Solution is designed to support, but no clients live or implementing
<b>Personal package:</b>	Solution is designed to support, but no clients live or implementing
<b>Commercial property:</b>	Live clients offering this product in all 50 US states
<b>General liability:</b>	Live clients offering this product in all 50 US states
<b>BOP:</b>	Live clients offering this product in 10-49 US states
<b>Commercial crime:</b>	Live clients offering this product in all 50 US states
<b>Commercial auto:</b>	Live clients offering this product in 10-49 US states
<b>E&amp;O/D&amp;O:</b>	Live clients offering this product in all 50 US states
<b>Inland marine:</b>	Solution is designed to support, but no clients live or implementing
<b>Professional liability (including medical malpractice):</b>	Live clients offering this product in all 50 US states
<b>Commercial package:</b>	Live clients offering this product in 10-49 US states
<b>Specialty:</b>	Live clients offering this product in all 50 US states
<b>Workers' comp:</b>	Live clients offering this product in 10-49 US states
<b>Surety:</b>	Solution is designed to support, but no clients live or implementing
<b>Other personal lines:</b>	Solution is designed to support, but no clients live or implementing
<b>Other commercial lines:</b>	Solution is designed to support, but no clients live or implementing

## Client Base

Globally, Sapiens has seven clients live on the Adaptik Suite, all of which are US/Canadian insurer clients (not MGAs, self-insureds, etc.). Most of these are large companies (over \$1B) using the solution in commercial lines, with some personal. Most of the clients use the solution as a stand-alone system (rather than as part of a suite).

Publicly announced clients include Travelers, Starr, Arch, Country Financial, and Canal Insurance.

## Key Functions and Differentiators

Sapiens cites the key functions of Adaptik Suite as:

- Business-oriented configuration capabilities that require no scripting or coding and support P/C insurance products, data capture, and application behavior
- Transactions that support rules-based features such as out-of-sequence processing, straight-through renewal processing, and channel-specific rules
- Integration points that can be configured as needed within the application flow to extend the capabilities of Adaptik Suite without requiring code changes (even after upgrades)
- Automatic reconciliation and remediation of policy data against configured rules which can be applied to conversion, renewal, upload from third-party solutions, policy changes
- Comprehensive rules management allowing for configuration of functions including user interface presentation rules, rating formulas and lookup tables, and system integrations

The company cites as its key differentiators that it shares business rules across states, distribution channels, user types, etc., specifying only exceptions where applicable; a Web user interface and new data capture that are enabled without database changes or programming; configuring business rules with conditional behavior at different levels in the system (field, page, user, etc.); reuse of configured business logic from the UI to validate and remedy or reject data uploaded into the system; and rule governance features that enable parallel development, automated rule resequencing, and merging.

## Solution Architecture and History

Adaptik Suite was launched in 2002 and re-architected in 2013. The latest release was in December 2017. Sapiens reports that all of the solution's customers are on the latest version and have been through at least one upgrade.

Oracle databases are supported, as well as UNIX/Linux and Windows server platforms. The solution is written in Java.

## Configurability and User Interface

Adaptik Suite is browser-based for all user interface functions. The company reports the solution offers mobile capabilities through an HTML5 user interface optimized for mobile via Adaptive Web design. Clients are not allowed to touch core code. Adaptik Suite's configuration tools are designed to be used by non-IT staff. Configuration for insurance products, screens, workflows, rules, interfaces, and document authoring is via tools intended for IT analysts or BAs.

## Deployment Options

Sapiens offers on-premise and hosted on AWS deployment options for Adaptik Suite. A SaaS delivery model is hosted with a subscription license that includes maintenance and upgrades.

## Average Implementation Length and Cost

Sapiens implements the solution through a partner. It reports that Adaptik Suite can be ready for initial go-live in nine months or less, fully rolled out in an additional 18 months or less, and that average implementation cost for the middle 50% of the client base is \$1M-\$2M.

### Support

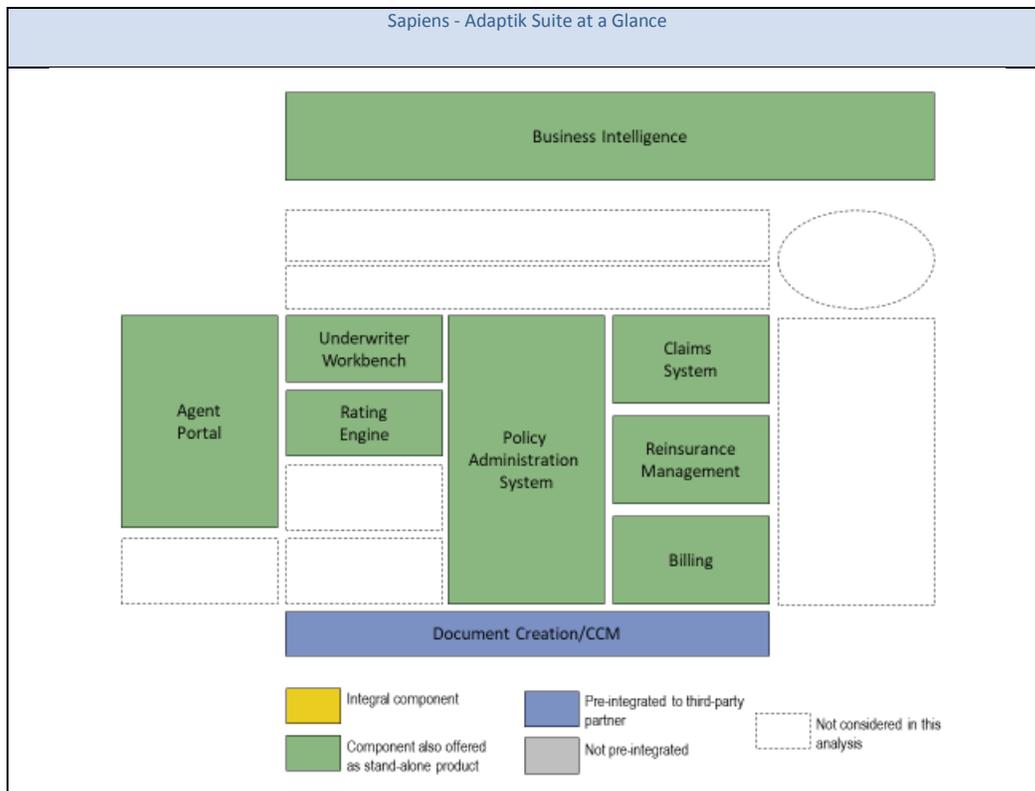
Of the 2,500 people employed at Sapiens, there are more than 300 BAs, PMs, developers, and QA members (combining on-shore and offshore staff) that are knowledgeable about Sapiens' offerings.

Sapiens offers customer engagement initiatives such as a customer advisory committee and user events—including user conferences to connect customers, partners, prospects, and product teams as well as to exchange insights on industry, market, and product developments.

### Partnerships

Publicly announced partnerships include GhostDraft, Outline Systems, SIMS Claims, Oracle (InsBridge), and Invoice Cloud.

### Functionality



### Policy Administration Functions

Policy administration functions are integral to the suite and also marketed as a stand-alone solution. The solution includes policy issue, out-of-sequence endorsement, and manuscripted policies out of the box with no configuration necessary. The solution includes bordereaux import and forms management with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language. The solution also includes premium accounting via out-of-the-box integration to Adaptik Billing.

All of the following are independent objects in the solution's data model: policy, product, policyholder, individual, distributor, and insured. Fields may be added to the conceptual model, Web pages, and system interfaces via Product Designer (a business analyst tool).

### **Rating Functions**

Adaptik Rating is integral to the suite and is also marketed as a stand-alone solution.

Core rating functions like quick quote option; support for after-inception policy rating for endorsements, cancellations and reinstatements, and renewal processing; out-of-sequence endorsements; rating multiple coverage/quote alternatives; and multi-line, multi-state, and multi-location rating on a single policy are available with configuration using simple tools targeted for IT analysts or BAs.

Compliance and change control functions like versioning and update management; change control functions; and auditability of rate versioning are standard. Sapiens reports if a customer selects the optional ISO licensing, the applications and forms library with standard and customizable applications and forms would be applicable and available (through its pre-integrated forms partner GhostDraft).

Pre-integration to third-party data providers is available with configuration using developer tools, XML manipulation, or a scripting language. Currently, the solution doesn't include download to agency management systems. ISO rates/rules support, NCCI/Bureau of Workers' Comp rates/rules support, ISO-formatted statistical data, and ISO ERC integration are available with configuration using developer tools, XML manipulation, or a scripting language.

Setting carrier-specific defaults is available with configuration using simple tools targeted for IT analysts or BAs. Multicarrier comparison is available via out-of-the-box integration to a third-party system or service. Product and rate development workflow functionality like saving or storing an in-process or completed policy change transaction to allow issuance at a later date is available as a standard function; product design and development tools are also standard.

Rule definition and management functions like maintaining rating algorithm definition and management separately from rate tables; rate table design and update management tools; the import/export of rating tables to/from spreadsheets (e.g., Excel); rating and rule definition and management (e.g., automatic driver assignment); and date management capabilities are all standard functions.

Finally, Adaptik Rating displacement testing (ability to run existing book of business through proposed rate/product changes to determine impact) as well as testing, modeling, and product analysis are available with configuration using simple tools targeted for IT analysts or BAs.

### **Underwriter Workbench Functions**

Adaptik Work Manager is integral to the suite and is not marketed as a stand-alone solution. Uploading/importing the submission data from a structured data feed (i.e., Excel) is available with configuration using simple tools targeted for IT analysts or BAs. Uploading/importing the submission information from documents (OCR-like functionality) is available with configuration using developer tools, XML manipulation, or a scripting language via a third-party integration.

Supporting new business transactions/underwriting, policy change transactions/underwriting, renewal transactions/underwriting, the non-renewal transaction, and the cancellation transaction are all standard functions. Supporting underwriting multiple submissions as one work portfolio is available with configuration using simple tools targeted for IT analysts or BAs.

Allowing individual quotes for different lines to be combined into a single proposal; capturing underwriting analysis; capturing an underwriter's loss analysis; underwriter checklists that can validate information completeness and process completeness; and providing a single current and historical view of the insured's account across the enterprise, lines of business, and policy systems all come standard.

Pricing analysis and scheduled rating information are available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes submission rating with either the suite's rating component or via out-of-the-box integration to a third-party system or service. Document creation (proposals, applications, correspondence) is available with configuration using simple tools targeted for IT analysts or BAs. Document storage is available out of the box with no configuration necessary.

Rules engines that automatically apply underwriting, workflow, and general business rules; workflow/task capabilities (inbox, predefined workflows by transaction or line of business, automatic task assignment, diaries, etc.); rules engines that interface to conditionally order specific data; and inline reports/dashboards on tasks/work/work status are all standard functions.

Inline reports/dashboards to support underwriting analysis are available with configuration using developer tools, XML manipulation, or a scripting language. The solution also includes displaying aggregate risk accumulations for the existing book at a granular location level (i.e., geo-mashup of existing book and proposed risk) via out-of-the-box integration to a third-party system or service.

IM collaboration with other underwriters is currently not available, but it could be available with integration to another system or service. Proposal co-authoring with other underwriters is available with configuration using simple tools targeted for IT analysts or BAs.

Screen sharing with other underwriters is currently not available, but it could be available with integration to another system or service. Agent-facing capabilities are available out of the box with no configuration necessary. Support for variable binding/approval authority by role as well as for email notification/communication with agents and underwriters within the system (retaining a record of all emails) are both available out of the box with no configuration necessary.

Finally, preconfigured interfaces with third-party data services are standard. Preconfigured integration with business intelligence environments is available with configuration using developer tools, XML manipulation, or a scripting language. The solution also includes preconfigured interfaces with policy admin systems, preconfigured interfaces with agent portals, natively calculated predictive scores, and preconfigured interfaces with external predictive scoring models via out-of-the-box integration to a third-party system or service.

### **Document Functions**

Adaptik Suite is pre-integrated with GhostDraft, Pitney Bowes, or another document system for document functions.

### **Agent Portal Functions**

Adaptik Agent Portal is part of the suite and is also sold as a stand-alone agent portal.

P/C portal functionality like new business entry/submission, uploading/importing data from Excel (e.g., locations, cars, drivers), quick quote, integration and pre-fill with data services, policy change entry/submission, renewal quote entry/submission, policy inquiry, policy transaction history inquiry, billing inquiry, proposal creation, side-by-side quote comparison, account or client view in addition to a policy view, underwriter view and/or tools, agent/underwriter collaboration, and rating engine are all standard functions.

Account clearance, ACORD application creation, and agency management system upload are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language. The solution also includes online payment via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include claims inquiry.

File attachment support; scheduling, diary, and calendar functions; workflow and task management capabilities; business intelligence and reporting; and a consumer portal are standard. Document creation is available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes support for e-signature via out-of-the-box integration to a third-party system or service.

### **Reinsurance Functions**

Reinsurance is integral to the suite and is also marketed as a stand-alone solution; Sapiens notes that reinsurance functionality is handled via Adaptik Suite.

Ceded reinsurance management functions like the manual entry and tracking of cessions, reserves, and limits; automated notification if a reserve reaches a specific amount or treaties approach set limits; and automated identification/calculation of accounts with applicable reinsurance are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language.

Assumed reinsurance management functions like the manual entry and tracking of assumed reinsurance contracts, automated assumed reinsurance calculations based on reinsured data feeds/connections, and retrocession reinsurance management are available with configuration using simple tools targeted for IT analysts or BAs.

Contract management functions like treaty management and facultative management are standard functions. Other contract management capabilities including proportional support; retroactively processing late placements or mid-term contract changes; and configuration of contract rules, formulas, and types are available with configuration using simple tools targeted for IT analysts or BAs.

Currently, the solution doesn't include non-proportional/excess of loss or multiple basis types (risks attaching, losses occurring, and claims made). The solution also doesn't include end-user interfaces for the manual entry of contracts, manual flagging of premiums and claims subject to reinsurance, or review and approval of assumed policies as part of facultative contracts.

Batch file import/export for integration to other systems and real-time integration to an underwriting system (e.g., to display limits/reserves) are standard. Other integration capabilities including real-time data intake from core systems (PAS, claims) via API or other mechanism are available with configuration using simple tools targeted for IT analysts or BAs.

Currently, the solution doesn't include integration with other insurer/reinsurer systems. The solution also includes statutory and regulatory reporting; a standard library of canned reports; automated Schedule F reporting; automated bordereau reporting; ad hoc reporting; and integrated analytics for profitability analysis, exposure, "what-if" analysis, risk profile, etc. via out-of-the-box integration to a third-party system or service.

Currently, the solution doesn't include automated recoverable claims identification or viewing the full history and status of claims and claim recovery. Multi-currency support and an audit trail for all transactions are standard.

Multi-language support is available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes document management and storage of the actual contracts via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include tracking reinsurance payables and receivables or entity management (CRM).

### **Business Intelligence Functions**

Adaptik Suite is pre-integrated with Jaspersoft's Jasper Reports for business intelligence functions; full analytics support is available via Sapiens' 4Sight Solution. 4Sight BI is also marketed as a stand-alone solution.

The solution has a normalized, transactional model for staging, operational data store, and enterprise data warehouse. It has a dimensional data model for data marts/cubes. These data models support all ANSI SQL databases, including MS-SQL, Oracle, DB2, HP Vertica, and Hadoop databases.

4SightBI functions include tools to support data governance and maintaining data dictionaries; tools to support data quality, validation, and augmentation; extract, transform, and load (ETL) capabilities; a presentation/reporting component; standard predefined reports; an ad hoc reporting tool; data mining and analytics tools; predefined, insurance-specific dashboards; and report scheduling and delivery capabilities.

The solution supports the customization of the data model by including pre-defined custom fields. The 4Sight BI data model also includes elements related to agency/producer, submission/quote, customer, policy, billing, claims, financials, reinsurance, and workflow metrics.

## Billing Functions

Adaptik Billing is part of the suite and is also sold as a stand-alone billing component. Payment and billing plan configurability are available out of the box with no configuration necessary. The table below shows the availability of other billing functions.

<b>Direct bill:</b>	Available out of the box with no configuration necessary
<b>Agency bill:</b>	Available out of the box with no configuration necessary
<b>Account or list bill:</b>	Available out of the box with no configuration necessary
<b>Third-party (i.e. mortgage) bill:</b>	Available out of the box with no configuration necessary
<b>Split or multi-payer bill:</b>	Not available
<b>Flexible and configurable payment plans:</b>	Available out of the box with no configuration necessary
<b>Support for flexible payment types (e.g. payment card, check, EFT, payroll deduction):</b>	Available out of the box with no configuration necessary
<b>Automated rules for payment application and disbursements:</b>	Available out of the box with no configuration necessary
<b>Real-time account and payment calculation, scheduling, recalculation, and rescheduling:</b>	Available out of the box with no configuration necessary
<b>Commission calculation and payment:</b>	Available out of the box with no configuration necessary
<b>Collections activities and interfaces:</b>	Available out of the box with no configuration necessary
<b>Equity billing support:</b>	Available out of the box with no configuration necessary
<b>Automated workflow and task management:</b>	Available out of the box with no configuration necessary
<b>Electronic bill presentment:</b>	Available out of the box with no configuration necessary
<b>Agent portal:</b>	Available out of the box with no configuration necessary
<b>Consumer portal:</b>	Available out of the box with no configuration necessary
<b>Online payment:</b>	Available out of the box with no configuration necessary
<b>Out-of-the-box integration with banks/credit card companies for token-based processing:</b>	Yes
<b>Payroll deduction:</b>	Currently not available, but could be available with integration to another system or service
<b>Billing dashboarding/reporting:</b>	Available out of the box with no configuration necessary
<b>Pay-as-you-report for workers' comp:</b>	Currently not available, but could be available with integration to another system or service
<b>Invoice and correspondence:</b>	Available out of the box with no configuration necessary
<b>Check generation/production:</b>	Available via out-of-the-box integration to a third-party system or service
<b>Billing for non-premium receivables (such as claims deductibles paid):</b>	Available out of the box with no configuration necessary
<b>Payment of non-refund payables (such as policy dividends or mutual dividends):</b>	Available out of the box with no configuration necessary
<b>Multi-currency support in a single instance of the application:</b>	Yes

## **Claims Functions**

Stream Claims is pre-integrated into the Adaptik Suite to offer claims capabilities to its customers and is also sold as a stand-alone claims component.

### ***Adjudication***

Capabilities like medical case management, injury detail maintenance (coding), disability management, automated coverage verification, aggregate tracking (erosion of policy limits), and deductible tracking are all standard functions.

### ***Catastrophe***

Catastrophe definition, automatic identification of catastrophe claims, attaching multiple LOBs and causes of loss to a single catastrophe, and mapping tools are all standard functions.

### ***Disbursements***

Check processing, calculating and scheduling recurring payments, calculating partial or one-off payments, accommodating multiple pay parties (e.g., garnishments), combining multiple pending payments for a single client into one disbursement, and handling multiple offsets and deductions against benefits (e.g., wage garnishments, child support, etc.) are all standard functions. The solution also includes OFAC checking via out-of-the-box integration to a third-party system or service.

### ***Documents***

Capabilities like multi-channel delivery and output of documents (including PDF, email, Web, and print) are standard functions. State-specific claims reporting templates are available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes image and media management, a correspondence or forms library, document rendering, and a content repository and content management tools via out-of-the-box integration to a third-party system or service.

### ***FNOL***

Recording and storage of new loss notices (including FROI/SROI) from a Web portal, email, fax, or manual entry; handling of FROI/SROI EDI reporting; mobile and smart device input; scripting for claims intake with reflexive questioning; claim characteristics scoring (to calculate alerts, trigger workflow, assign a claims handler, or otherwise segment the claim); claimant contact management data capture; and checking for duplicate claims are all standard functions. Other capabilities including customized question sets to prompt mandatory additional questions depending on the answers given (branch scripting) and integration with external vendors and services, such as car rental companies or repair (car, equipment) shops, are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Fraud***

Capabilities like configurable business rules and tasks (specific to fraud and special investigations) are standard. Other capabilities including provision of multiple search and reporting criteria for fraud detection via the ability to track common clients across multiple claims are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Litigation***

Capabilities like litigation process tracking, including negotiation details and litigation costs, and creating separate tasks, workflow, diaries, and business rules for litigated cases to allow legal case management are standard functions.

### ***Multi-Channel***

The solution includes e-signature capability, call center integration for FNOL via telephony, and call center integration for claims status check via telephony via out-of-the-box integration to a third-party system or service. The company notes that an agent portal with self service and a policyholder portal with self service are under development and should be available in less than six months.

### ***Reinsurance***

Capabilities like identifying claims subject to reinsurance through multiple dimensions (e.g., type of claim, limit, location, etc.), assignment to reinsurance treaties, and assignment to facultative arrangements are all standard functions.

### ***Reporting***

Standard reporting of claims performance monitoring, including claims handling, and high-risk indicators such as fatality, large losses, and fraud; standard reporting of configurable metrics for claims reporting; and electronic reporting or automated state filings are all standard functions. Dashboards are available with configuration via developer tools, XML manipulation, or a scripting language. The solution also includes ad hoc reports and reporting that includes jurisdictional-specific reports and forms via out-of-the-box integration to a third-party system or service.

### ***Reserves, Recoveries, Subrogation***

Creating separate tasks, workflow, diaries, and business rules for subrogated cases; automatic subrogation identification; subrogation billing and the production of correct GL entries; granular tracking of reserves and payments; automatic reserve calculations using business rules and risk characteristics; direct, case, average, factor, and expense reserve types; and jurisdictional wage and rate calculations integrated for workers' comp are all standard functions.

### ***Vendor Management***

Vendor management functions are standard. Capabilities for processing required forms (including 1099s) are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Workflow***

Capabilities like automated workflow/task generation; overriding automated processes and manually triggering workflow processes; automatic work assignment based on configurable rules; generating notes, diaries, and reminders; inclusion of external documents (letters and pictures) in file notes; assigning multiple adjusters to a single claim; and processing claim workflow trigger (CWT) files at insurer-defined intervals are all standard functions. Other capabilities including full integration with electronic court filings (ECF2) are available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes OCR-triggered workflow via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include compliance with the Document Repository Interface (DRI) standards.

## Screenshots

### Billing

### Work Manager

Policy

The screenshot shows a web browser window titled "Policy - AMDemo (pw37.adaptik.net) - cmerkel (Merkel, Chris) - Google Chrome". The URL is "pw37.adaptik.net:9080/AMDemo/AMEntryPoint?pageCode=SEARCH&sessionInit=cmerkel&theme=adaptik-base&appMode=standalone&app=Select". The page header includes the adaptik logo and a navigation menu on the left with options like "Customer Info", "Contact Information", "Policies and Quotes", "Customer Notes", "Basic Information", "Financial Information", "Insurance Information", "Loss Information", "Coverages", "Forms", "Indication", "Pricing", "Billing", "Subject To", "Additional Interests", "Notes and Attachments", "Rule Reapplication", "Policy Content", and "Adaptik XML".

The main content area is titled "Insurance Information" and contains the following sections:

- Policy Options:**
  - What limit options would the Applicant like? (please select all that apply)
    - Individual Limits
    - Liability Coverage Part Shared Limit of Liability
    - Aggregate Limit of Liability
  - Does the Applicant's current D&O coverage include EPL coverage?  Yes  No
- Liability Coverages:**
  - Directors and Officers (D&O):**
    - Requested Limit: 1,000,000
    - Expiring Limit: 1,000,000
    - Coverage Currently Purchased:  Yes  No
    - Requested Retention: 20,000
    - Expiring Retention: 25,000
    - Current Insurer: ALLIED
    - Requested Effective Date: 01/01/2016
    - Expiring Premium: 52,000
    - Date Coverage First Purchased: 01/01/1999
  - Employment Practices (EPL):**
    - Requested Limit: 2,000,000
    - Expiring Limit: 1,000,000
    - Coverage Currently Purchased:  Yes  No
    - Requested Retention: 10,000
    - Expiring Retention: 10,000
    - Current Insurer: SCOTTSDALE
    - Requested Effective Date: 01/01/2016
    - Expiring Premium: 26,001
    - Date Coverage First Purchased: 01/01/1999
  - Fiduciary Liability:**
    - Requested Limit: 1,000,000
    - Expiring Limit: 1,000,000
    - Coverage Currently Purchased:  Yes  No
    - Requested Retention: 20,000
    - Expiring Retention: 15,000
    - Current Insurer: HOME
    - Requested Effective Date: 01/01/2016
    - Expiring Premium: 17,520
    - Date Coverage First Purchased: 01/01/1999

A note at the bottom states: "\*Contact information required to verify employment at time of claim." The bottom of the browser window shows a toolbar with icons for Previous, Actions, Errors, Search, New Quote, Notes, Help, Support, Preferences, Save & Exit, Clear Cache, Debugger, and Next.

Product Designer

The screenshot shows the "Product Designer View Item Placement Tool" interface. It features a grid-based workspace with a toolbar at the top containing icons for various actions. The main area is divided into several sections:

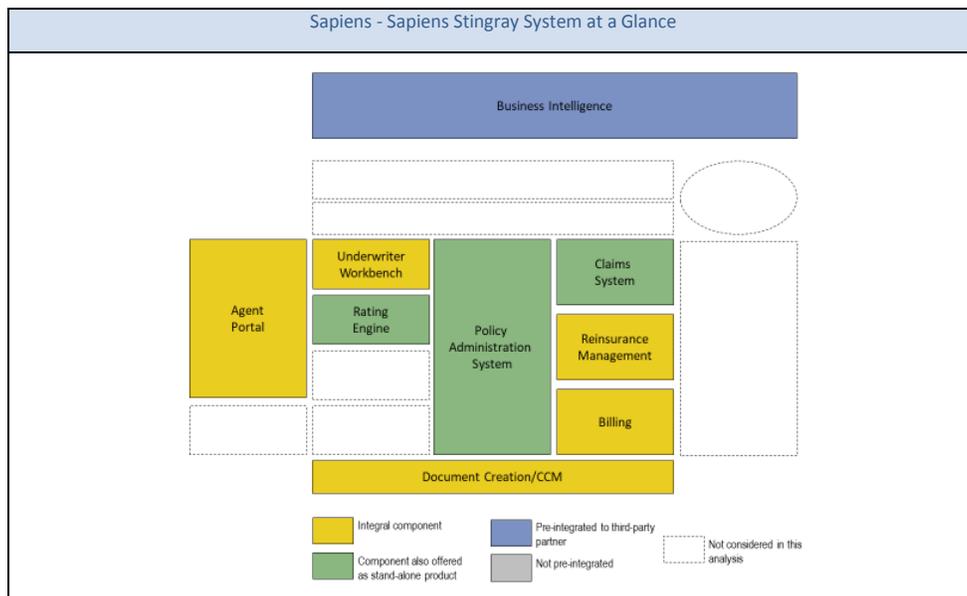
- Context Information:**
  - Web Pg./Interface: Locations/Buildings [NBUILDING]
  - View: Building Detail [BUILDING\_DT]
  - View Item: Green Certification [Q\_3080\_130]
  - VI Version: Version 1
- View Item Properties:**
  - Tab Order: 118
  - Literal Properties: Alignment (H: Left - V: Middle), Font (Default), Background Color (None Specified), Override Style (None Specified), Row Coordinates (Start: 33 - Span: 1), Column Coordinates (Start: 1 - Span: 20).
  - Control Properties: Alignment (H: Left - V: Middle), Font (Default), Background Color (None Specified), Control Color (None Specified), Override Style (None Specified), Row Coordinates (Start: 33 - Span: 1), Column Coordinates (Start: 21 - Span: 16).
  - Borders, Padding & Margins
  - Group Properties
  - Actions: Movement (Up, Down, Left, Right), Delete Items
- Occupancy Information:**
  - % Owner Occupied
  - % Tenant Occupied
  - Occupancy Total
- Building Use:**
  - Segment
  - Classification
  - Building Improvements (Year)
  - Wiring
  - Roofing
  - Plumbing
  - Heating
- Protection Information:**
  - Protection Class
  - Fire Protection
  - Smoke Detection
  - Fire Alarm
  - Distance (Miles) to Fire Station
  - Distance (ft) to Fire Hydrant
  - Inside City Limits
  - Responding Fire Department
  - Guards - Watchman
  - Fire District - Code Number
  - Burglar Alarm Type
  - Are Radioactive Isotopes used at this facility?
  - Are Radioactive Isotopes stored in a lead encased safe room?
  - Green Certification
- Catastrophe Exposure Info:**
  - Flood Zone
  - Wind Class
  - Distance to Body of Water
  - Earthquake Zone

The bottom of the interface includes a toolbar with "Submit", "Cancel", and "Reload" buttons, along with a language dropdown set to "English (United States)" and a "Grid Visibility" checkbox.

## SAPIENS - SAPIENS STINGRAY SYSTEM

### Executive Summary

- Sapiens is a publicly traded company, NASDAQ ad TASE (SPNS). Formula Group is the largest shareholder. Sapiens' Stingray team is headquartered in Rochelle Park, NJ and employs 2,200 people. The company's annual revenue is in the range of \$100M-\$250M.
- The Sapiens Stingray System is a suite of solutions that includes core policy features, rating, underwriter workbench, document creation, agent portal, reinsurance, billing, and claims components.
- It currently has 20 live US/Canadian insurer clients using the suite, most of which are smaller companies (under \$1B) using the solution primarily in personal lines with some commercial.
- Publicly announced clients include Allianz, American Alliance, Kentucky National Insurance, Mutual Aid Exchange, and Narragansett Bay Insurance.
- Live lines of business include nearly all the personal and commercial lines queried by Novarica, with the exception of personal package and surety.
- The solution is browser-based for all user interface functions. It is written in Java, along with SQL, HTML, JavaScript/jQuery, and CSS.
- Configuration for insurance products, screens, workflows, rules, interfaces, and document authoring is via tools intended for IT analysts or BAs.
- Implementation is available through the company's own resources. On-premise hosted at a private data center deployment options.
- The company reports that average time to go-live is 180 days or less and that the average cost for the middle 50% of the client base is \$100K-\$500K.



## Lines of Business Supported

<b>Personal auto:</b>	Live clients offering this product in all 50 US states
<b>Homeowners:</b>	Live clients offering this product in all 50 US states
<b>Personal umbrella:</b>	Live clients offering this product in 10-49 US states
<b>Dwelling fire:</b>	Live clients offering this product in 10-49 US states
<b>Boatowners:</b>	Live clients offering this product in 2-9 US states
<b>Personal package:</b>	Clients currently in implementation for this line/product
<b>Commercial property:</b>	Live clients offering this product in 10-49 US states
<b>General liability:</b>	Live clients offering this product in 10-49 US states
<b>BOP:</b>	Live clients offering this product in all 50 US states
<b>Commercial crime:</b>	Live clients offering this product in 10-49 US states
<b>Commercial auto:</b>	Live clients offering this product in all 50 US states
<b>E&amp;O/D&amp;O:</b>	Live clients offering this product in 2-9 US states
<b>Inland marine:</b>	Live clients offering this product in 10-49 US states
<b>Professional liability (including medical malpractice):</b>	Live clients offering this product in all 50 US states
<b>Commercial package:</b>	Live clients offering this product in 2-9 US states
<b>Specialty:</b>	Live clients offering this product in all 50 US states
<b>Workers' comp:</b>	Live clients offering this product in all 50 US states
<b>Surety:</b>	Solution is designed to support, but no clients live or implementing
<b>Other personal lines*:</b>	Live clients offering this product in all 50 US states
<b>Other commercial lines†:</b>	Live clients offering this product in all 50 US states

\* Other personal lines include non-admitted property.

† Other commercial lines include crop and surplus/non-admitted property.

## Client Base

Globally, the company has 24 clients live on Sapiens Stingray System, 20 of which are insurer clients (not MGAs, self-insureds, etc.) in the US and Canada. Most of these are smaller companies (under \$1B) using the solution primarily in personal lines with some commercial. Some of the clients use the solution as a stand-alone system (rather than as part of a suite).

Publicly announced clients include Allianz, American Alliance, Kentucky National Insurance, Mutual Aid Exchange, and Narragansett Bay Insurance.

## Key Functions and Differentiators

Maximum Processing cites the key functions of The Sapiens Stingray System as:

- User configurability of the solution
- Seamless, out-of-sequence endorsements
- Fully integrated business intelligence
- Support for equity billing, account current, or agency billing
- Offering a complete suite with imaging and portals

The company cites as its key differentiators its speed to market; integrated address standardization, OFAC, and other components; more than 80 included, out-of-the-box interfaces (ISO, LexisNexis, etc.); an open license that is not limited by users, premium, or lines and that includes all interfaces; as well as that it covers all lines of business/bureaus.

## **Solution Architecture and History**

The Sapiens Stingray System was launched in 2002 and re-architected in 2009. The latest release was in September 2017. The company reports that 90% of the solution's customers are on the latest version, and 10% are on an older version released in the last three years. Approximately 90% of customers have been through at least one upgrade.

Microsoft SQL Server databases are required, and Windows server platforms are supported. The solution is written in Java, along with SQL, HTML, JavaScript/jQuery, and CSS.

## **Configurability and User Interface**

The Sapiens Stingray System is browser-based for all user interface functions. The solution offers mobile capabilities through an HTML5 user interface optimized for mobile use.

Clients are allowed to touch core code, but only in extreme circumstances. The Sapiens Stingray System's configuration tools are not designed to be used by non-IT staff. Configuration for insurance products, screens, workflows, rules, interfaces, and document authoring is via tools intended for IT analysts or BAs.

## **Deployment Options**

The company offers on-premise and hosted at a private data center deployment options for The Sapiens Stingray System.

## **Average Implementation Length and Cost**

The Sapiens Stingray System is implemented through the company's own resources. It reports that The Sapiens Stingray System can be ready for initial go-live in 180 days or less and fully rolled out in an additional 180 days or less. The company reports that average implementation cost for the middle 50% of the client base is \$100K-\$500K.

## **Support**

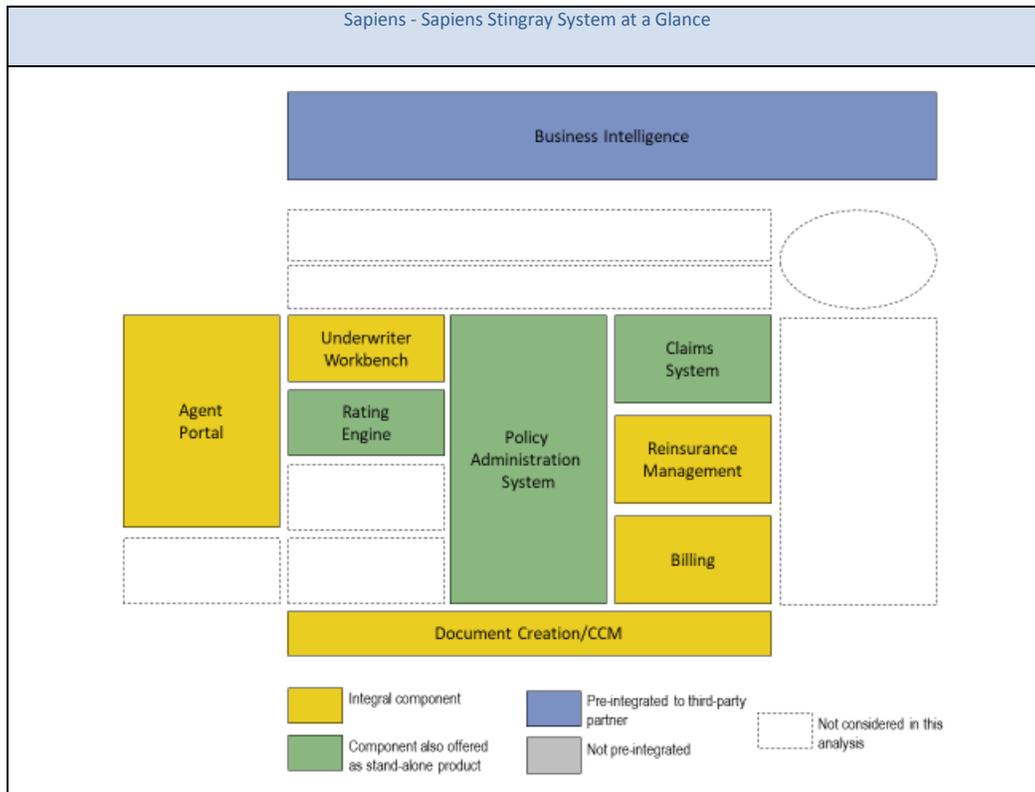
Of the 2,200 people employed at Sapiens, there are between 100 and 250 on the product design and engineering team as well as on the implementation team (not counting partnerships) and on the support team.

In addition to local resources at the client site, support staff are provided out of the Raleigh, NC and Bradenton, FL offices. The company offers customer engagement initiatives such as online training and user events.

## **Partnerships**

Publicly announced partnerships include 4Sight Business Intelligence, GhostDraft, IVANS, ISO, and LexisNexis.

## Functionality



### Policy Administration Functions

Policy administration functions are integral to the suite and also marketed as a stand-alone solution. The solution includes policy issue, premium accounting, and out-of-sequence endorsement out of the box with no configuration necessary. Bordereaux import, forms management, and manuscripted policies are available with configuration using simple tools intended for IT analysts or BAs.

All of the following are independent objects in the solution's data model: policy, product, policyholder, individual, distributor, and insured.

### Rating Functions

The Sapiens Stingray System is part of the suite and is also sold as a stand-alone rating engine. Core rating capabilities including quick quote option; support for after-inception policy rating for endorsements, cancellations and reinstatements, and renewal processing; out-of-sequence endorsements; rating multiple coverage/quote alternatives; and multi-line, multi-state, and multi-location rating on a single policy are available with configuration using simple tools targeted for IT analysts or BAs.

Compliance and change control functions like versioning and update management, change control functions, and auditability of rate versioning are standard. The applications and forms library with standard and customizable applications and forms is available with configuration using simple tools targeted for IT analysts or BAs.

Integration capabilities such as pre-integration to third-party data providers come standard; download to agency management systems is available with configuration using simple tools targeted for IT analysts or BAs. ISO/NCCI partnership capabilities including ISO rates/rules support, NCCI/Bureau of Workers' Comp rates/rules support, ISO-formatted statistical data, and ISO ERC integration are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language.

Multicarrier comparison and setting carrier-specific defaults are available with configuration using simple tools targeted for IT analysts or BAs. Product and rate development workflow functionality like saving or storing an in-process or completed policy change transaction to allow issuance at a later date is standard. Product design and development tools are also standard.

Rule definition and management functions like maintaining rating algorithm definition and management separately from rate tables, rate table design and update management tools, the import/export of rating tables to/from spreadsheets (e.g., Excel), and date management capabilities are standard functions. Other rule definition and management capabilities including rating and rule definition and management (e.g., automatic driver assignment) are available with configuration using simple tools targeted for IT analysts or BAs.

Finally, displacement testing (ability to run existing book of business through proposed rate/product changes to determine impact) as well as testing, modeling, and product analysis are available with configuration using simple tools targeted for IT analysts or BAs.

### **Underwriter Workbench Functions**

Sapiens Stingray UnderWriter is integral to the suite and marketed as a stand-alone solution.

Uploading/importing the submission data from a structured data feed as well as uploading/importing the submission information from documents (OCR-like functionality) are available with configuration using simple tools targeted for IT analysts or BAs.

Functions like supporting new business transactions/underwriting, supporting policy change transactions/underwriting, supporting renewal transactions/underwriting, supporting the non-renewal transaction, supporting the cancellation transaction, and supporting underwriting multiple submissions as one work portfolio are all standard.

Capabilities like capturing underwriting analysis; capturing an underwriter's loss analysis; and providing a single current and historical view of the insured's account across the enterprise, lines of business, and policy systems are all standard functions. Other capabilities including allowing individual quotes for different lines to be combined into a single proposal, underwriter checklists that can validate information completeness and process completeness, submission rating, and pricing analysis and scheduled rating information are available with configuration using simple tools targeted for IT analysts or BAs. Document creation (proposals, applications, correspondence) is available with configuration using simple tools targeted for IT analysts or BAs. Document storage is a standard function.

Functions like workflow/task capabilities (inbox, predefined workflows by transaction or line of business, automatic task assignment, diaries, etc.), rules engines that interface to conditionally order specific data, inline reports/dashboards on tasks/work/work status, inline

reports/dashboards to support underwriting analysis, and displaying aggregate risk accumulations for the existing book at a granular location level (i.e., geo-mashup of existing book and proposed risk) are all standard. Other functions including rules engines that automatically apply underwriting, workflow, and general business rules are available with configuration using either simple tools targeted for IT analysts or BAs.

IM collaboration with other underwriters is a standard function. Proposal co-authoring and screen sharing with other underwriters is available with configuration using simple tools targeted for IT analysts or BAs. Agent-facing capabilities are available with configuration using developer tools, XML manipulation, or a scripting language.

Support for variable binding/approval authority and for email notification/communication with agents and underwriters within the system (retaining a record of all emails) are standard functions. Natively calculated predictive scores are available with configuration using simple tools targeted for IT analysts or BAs.

Finally, capabilities like preconfigured interfaces with policy admin systems, preconfigured interfaces with agent portals, preconfigured integration with business intelligence environments, preconfigured interfaces with third-party data services, and preconfigured interfaces with external predictive scoring models are all standard functions.

### **Document Functions**

The company reports that document functions are integral to the suite and are not marketed stand-alone. In typical use cases, the document functions are designed to support both mass-produced documents such as statements and ad hoc documents like correspondence or manuscripted policies.

ISO/ACORD forms are not included. The primary authoring environment is either MS Word, Adobe Creative Suite, or a non-Microsoft/Adobe solution. Content is designed to be managed by the average business user, with business rules, schema mapping, and data sources maintained by business analysts.

The solution is designed to support print, e-delivery, and mobile output channels. Managing preferences for print vs. electronic delivery is available with configuration using simple tools targeted for IT analysts or BAs. For document authoring and content management workflow, clients primarily use the tool set built into the solution, but they have the option to use external workflow/BPM tools.

The content repository and content management tools are available via out-of-the-box integration to a third-party system or service, and archival capabilities for all documents generated are standard. The solution is designed to support industry-standard schemas like ACORD XML out of the box.

### **Agent Portal Functions**

Agent portal functions are integral to the suite and are not marketed as a stand-alone solution.

P/C portal functionality like online payment, policy inquiry, policy transaction history inquiry, billing inquiry, claims inquiry, account or client view in addition to policy view, underwriter view and/or tools, agent/underwriter collaboration, and rating engine are all standard.

Other P/C portal capabilities including new business entry/submission, account clearance, uploading/importing data from Excel (e.g., locations, cars, drivers), quick quote, integration and pre-fill with data services, policy change entry/submission, renewal quote entry/submission, proposal creation, ACORD application creation, side-by-side quote comparison, agency management system upload, and account or client view in addition to a policy view are available with configuration using simple tools targeted for IT analysts or BAs.

Finally, capabilities like file attachment support; scheduling, diary, and calendar functions; workflow and task management capabilities; business intelligence and reporting; and a consumer portal are standard functions. Support for e-signature is available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes document creation via out-of-the-box integration to a third-party system or service.

### **Reinsurance Functions**

Reinsurance is integral to the suite and is not marketed as a stand-alone solution. Ceded reinsurance management functions like the manual entry and tracking of cessions, reserves, and limits; automated notification if a reserve reaches a specific amount or treaties approach set limits; and automated identification/calculation of accounts with applicable reinsurance are available with configuration using simple tools targeted for IT analysts or BAs.

Assumed reinsurance management functions like the manual entry and tracking of assumed reinsurance contracts, automated assumed reinsurance calculations based on reinsured data feeds/connections, and retrocession reinsurance management are available with configuration using simple tools targeted for IT analysts or BAs.

Contract management capabilities including treaty management; facultative management; proportional support; non-proportional/excess of loss; multiple basis types (risks attaching, losses occurring, and claims made); retroactively processing late placements or mid-term contract changes; and configuration of contract rules, formulas, and types are available with configuration using simple tools targeted for IT analysts for BAs. End-user interfaces including interfaces for manual entry of contracts, for manual flagging of premiums and claims subject to reinsurance, and for review and approval of assumed policies as part of facultative contracts are available with configuration using simple tools targeted for IT analysts or BAs.

Integration capabilities include real-time data intake from core systems (PAS, claims) via API or other mechanism and real-time integration to an underwriting system (e.g., to display limits/reserves) out of the box with no configuration necessary. Other integration capabilities including batch file import/export for integration to other systems and integration between other insurer/reinsurer systems are available with configuration using simple tools targeted for IT analysts or BAs.

Reporting capabilities including statutory and regulatory reporting; a standard library of canned reports; automated Schedule F reporting; automated bordereau reporting; ad hoc reporting; and integrated analytics for profitability analysis, exposure, "what-if" analysis, risk profile, etc. are available with configuration using developer tools, XML manipulation, or a scripting language.

Claim management functions include viewing the full history and status of claims and claim recovery all out of the box with no configuration necessary. Other claim management capabilities including automated recoverable claims identification are available with configuration using developer tools, XML manipulation, or a scripting language.

Additional features and components like tracking reinsurance payables and receivables, document management and storage of the actual contracts, multi-language support, and an audit trail for all transactions are all standard functions.

Other capabilities including entity management (CRM) and multi-currency support are available with configuration using simple tools targeted for IT analysts or BAs.

### **Business Intelligence Functions**

The company pre-integrates 4Sight Business Intelligence's solution for business intelligence functionality within the suite; 4Sight BI is also marketed as a stand-alone solution.

The solution has a normalized, transactional model for staging, operational data store, and enterprise data warehouse. It has a dimensional data model for data marts/cubes. These data models support all ANSI SQL databases, including MS-SQL, Oracle, DB2, HP Vertica, and Hadoop databases.

4SightBI functions include tools to support data governance and maintaining data dictionaries; tools to support data quality, validation, and augmentation; extract, transform, and load (ETL) capabilities; a presentation/reporting component; standard predefined reports; an ad hoc reporting tool; data mining and analytics tools; predefined, insurance-specific dashboards; and report scheduling and delivery capabilities.

The solution supports the customization of the data model by including pre-defined custom fields. The 4Sight BI data model also includes elements related to agency/producer, submission/quote, customer, policy, billing, claims, financials, reinsurance, and workflow metrics.

## Billing Functions

Billing is integral to the suite and is not marketed as a stand-alone solution. Payment and billing plan configurability are standard functions.

The table below shows the availability of other billing functions.

<b>Direct bill:</b>	Available out of the box with no configuration necessary
<b>Agency bill:</b>	Available out of the box with no configuration necessary
<b>Account or list bill:</b>	Available out of the box with no configuration necessary
<b>Third-party (i.e. mortgage) bill:</b>	Available out of the box with no configuration necessary
<b>Split or multi-payer bill:</b>	Available out of the box with no configuration necessary
<b>Flexible and configurable payment plans:</b>	Available out of the box with no configuration necessary
<b>Support for flexible payment types (e.g. payment card, check, EFT, payroll deduction):</b>	Available out of the box with no configuration necessary
<b>Automated rules for payment application and disbursements:</b>	Available out of the box with no configuration necessary
<b>Real-time account and payment calculation, scheduling, recalculation, and rescheduling:</b>	Available out of the box with no configuration necessary
<b>Commission calculation and payment:</b>	Available out of the box with no configuration necessary
<b>Collections activities and interfaces:</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Equity billing support:</b>	Available out of the box with no configuration necessary
<b>Automated workflow and task management:</b>	Available out of the box with no configuration necessary
<b>Electronic bill presentment:</b>	Available out of the box with no configuration necessary
<b>Agent portal:</b>	Available out of the box with no configuration necessary
<b>Consumer portal:</b>	Available out of the box with no configuration necessary
<b>Online payment:</b>	Available out of the box with no configuration necessary
<b>Out-of-the-box integration with banks/credit card companies for token-based processing:</b>	Yes
<b>Payroll deduction:</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Billing dashboarding/reporting:</b>	Available out of the box with no configuration necessary
<b>Pay-as-you-report for workers' comp:</b>	Available out of the box with no configuration necessary
<b>Invoice and correspondence:</b>	Available out of the box with no configuration necessary
<b>Check generation/production:</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Billing for non-premium receivables (such as claims deductibles paid):</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Payment of non-refund payables (such as policy dividends or mutual dividends):</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Multi-currency support in a single instance of the application:</b>	Yes

## **Claims Functions**

The Sapiens Stingray Claims System is part of the suite and is also sold as a stand-alone claims component.

### ***Adjudication***

Medical case management, automated coverage verification, aggregate tracking (erosion of policy limits), and deductible tracking are all standard functions. Other capabilities including injury detail maintenance (coding) and disability management are available with configuration using simple tools targeted for IT analysts or BAS, developer tools, XML manipulation, or a scripting language.

### ***Catastrophe***

Catastrophe definition, attaching multiple LOBs and multiple causes of loss to a single catastrophe, and mapping tools are all standard functions. Other capabilities including automatic identification of catastrophe claims are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Disbursements***

Check processing, calculating and scheduling recurring payments, calculating partial or one-off payments, combining multiple pending payments for a single client into one disbursement, and OFAC checking all come standard.

Other capabilities including accommodating multiple pay parties (e.g., garnishments) and handling multiple offsets and deductions against benefits (e.g., wage garnishments, child support, etc.) are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Documents***

Capabilities like image and media management, a correspondence or forms library, document rendering, a content repository and content management tools, and multi-channel delivery and output of documents (including PDF, email, Web, and print) are all standard functions. Other capabilities including state-specific claims reporting templates are available with configuration using simple tools targeted for IT analysts or BAs.

### ***FNOL***

Claimant contact management data capture are all standard functions. Other capabilities like recording and storage of new loss notices (including FROI/SROI) from a Web portal, email, fax, or manual entry; mobile and smart device input; scripting for claims intake with reflexive questioning; customized question sets to prompt mandatory additional questions depending on the answers given (branch scripting); claim characteristics scoring (to calculate alerts, trigger workflow, assign a claims handler, or otherwise segment the claim); checking for duplicate claims; and integration with external vendors and services, such as car rental companies or repair (car, equipment) shops, are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language.

The solution also includes handling of FROI/SROI EDI reporting via out-of-the-box integration to a third-party system or service.

### ***Fraud***

Configurable business rules and tasks (specific to fraud and special investigations) and provision of multiple search and reporting criteria for fraud detection via the ability to track common clients across multiple claims are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Litigation***

Capabilities like litigation process tracking, including negotiation details and litigation costs and creating separate tasks, workflow, diaries, and business rules for litigated cases to allow legal case management are all standard functions.

### ***Multi-Channel***

Electronic signature capability; an agent portal with self service; and a policyholder portal with self service are all standard functions. Call center integration for FNOL via telephony as well as call center integration for claims status check via telephony are available with configuration using developer tools, XML manipulation, or a scripting language.

### ***Reinsurance***

Capabilities including identifying claims subject to reinsurance through multiple dimensions (e.g., type of claim, limit, location, etc.), assignment to reinsurance treaties, and assignment to facultative arrangements are available with configuration using developer tools, XML manipulation, or a scripting language.

### ***Reporting***

Capabilities like standard reporting of configurable metrics for claims reporting, ad hoc reports, and dashboards are all standard functions. Other capabilities including standard reporting of claims performance monitoring, including claims handling, and high-risk indicators such as fatality, large losses, and fraud; reporting that includes jurisdictional-specific reports and forms; and electronic reporting or automated state filings are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language.

### ***Reserves, Recoveries, Subrogation***

Capabilities like creating separate tasks, workflow, diaries, and business rules for subrogated cases; the granular tracking of reserves and payments; automatic reserve calculations using business rules and risk characteristics; and direct, case, average, factor, and expense reserve types are all standard functions.

Other capabilities including automatic subrogation identification; subrogation billing and the production of correct GL entries; and jurisdictional wage and rate calculations integrated for workers' comp are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language.

### ***Vendor Management***

Vendor management functions and capabilities like processing required forms (including 1099s) are standard.

**Workflow**

Automated workflow/task generation; overriding automated processes and manually triggering workflow processes; automatic work assignment based on configurable rules; generating notes, diaries, and reminders; inclusion of external documents (letters and pictures) in file notes; and assigning multiple adjusters to a single claim are all standard functions. Other capabilities including OCR-triggered workflow; compliance with the Document Repository Interface (DRI) standards; and processing claim workflow trigger (CWT) files at insurer-defined intervals are available with configuration using simple tools targeted for IT analysts or BAs, developer tools, XML manipulation, or a scripting language. The solution also includes full integration with electronic court filings (ECF2) via out-of-the-box integration to a third-party system or service.

**Screenshots**

Quote Sample

Home	Homeowners	Claims	Tools	System Administration
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### Quick Quote

Policy Holder Info
Dwelling Info
Coverages
Quote Result

**Policy Holder Information**

Tommy	<small>First Name</small>	<small>MI</small>	Lee	<small>Last Name</small>	<small>Suff</small>	(123) 654-5871	<small>Phone</small>
m@m.com						<small>Email Address</small>	
Church						<small>Agency</small>	
Abundant Life Ministries (El Dorado Springs/MO)						Bergen-Friesen Agency Inc	

**Property Address Information**

<small>Occupancy</small>				<input checked="" type="checkbox"/> <small>Mailing Address Same as Property Address</small>			
Condo Owner							
15 US19		<small>Property Address 1</small>		15 US19		<small>Mailing Address 1</small>	
				<small>Property Address 2</small>			
Tampa		<small>City</small>	OH	33569	<small>ZIP</small>	Tampa	
N/A		<small>County</small>		33569		<small>ZIP</small>	

**Fire Protection**

Distance to hydrant in Feet:	652	<small>Ft</small>	Distance to responding fire station in Miles:	7	<small>Mi</small>
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**Rating Info**

12/8/2009	<small>Effective Date</small>	HO 0006	<small>Coverage Form</small>
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Exit
Continue >>

Disbursements Search

**Disbursements Search**



**Locate Disbursements**

Check Status:  
 Date Type:  Date From:  Date To:   
 Date Option...

Or by entering a name to search by:  
 Approved by:  Created by:   
 Approved Users...  Created Users...

Payee Information:

Check Amount:

Check Status:  
 Stopped  Paid  
 Voided

FNOL

**First Notice Of Loss**

**FNOL Upload**

Member Name:  Member Name
Claim Reported By:  Member  Broker

**FNOL Information**

Sel	Entered Date	Member	Claimant	Sent By
<input type="checkbox"/>	7/29/2014 9:57:56 AM	Hobart Smit		

1 Results Found.

Received Date:  Received Date
 Entered Date:  Entered Date

Sent By:  Sent By

**Claimants**

Sel	Claimant Name
0 Results Found.	

Claimant Type:  Individual  Entity

Claimant Name:

Alias:

Note for Triage:

**Attachment(s)**

Sel	Submitted Date	Submitted By	Type	Annotate	Category	Description
0 Results Found.						

Insured Portal: Main Page

## Property & Liability Pool Customer Care

**Welcome**

Welcome to Someone's Insurance Company Insured Customer Care Center. Please review your policy information and select an option from the action menu below.

To be able to view and print some of the policy forms and documents you will need to have Adobe Acrobat PDF reader installed on your computer.

To download the Adobe Acrobat reader click on the Adobe icon located to the right.



**Your Policies**

Select	Member Name	Member #	Policy	Pool	Policy Term
<input checked="" type="radio"/>	Max Tester	99887	PL99887-14	Property & Liability Pool	10/01/2014 - 06/01/2015

1 Results Found.

**Your Information**

<b>Member Name:</b> Max Tester	<b>Address 1:</b> 21034 Heron Way	<b>Address 2:</b>
<b>Member #:</b> 99887	<b>City:</b> Lakeville	
<b>Phone #:</b> (888) 555-1234	<b>State:</b> MN	<b>Zip Code:</b> 55044-8093

**Your Policy Information**

<b>Policy Number:</b> PL99887-14	<b>Member:</b> Max Tester
<b>Effective Date:</b> 10/01/2014	<b># of installments left:</b> 5
<b>Expiration Date:</b> 06/01/2015	<b>Status:</b> New Business
<b>Policy Balance:</b> \$7,886.00	<b>Last Invoice Sent:</b> 09/03/2014
<b>Current Due:</b> \$1,971.50	<b>Last Invoice Due:</b> 10/01/2014

**Action Menu**

<a href="#">Schedule Payment Reminder</a>	Schedule a policy payment reminder.
<a href="#">Policy Documents</a>	View and print all policy forms and documents.
<a href="#">Automobile ID Cards</a>	View and print all ID cards.
<a href="#">Additional Non-NIT policies</a>	View and print Non-NIT policies.
<a href="#">Policy Premium Allocations</a>	View and print the premium allocations.
<a href="#">Certificates of Insurance</a>	View and create Certificate's of Insurance.
<a href="#">Billing/Payment History</a>	View Billing/Payment History.

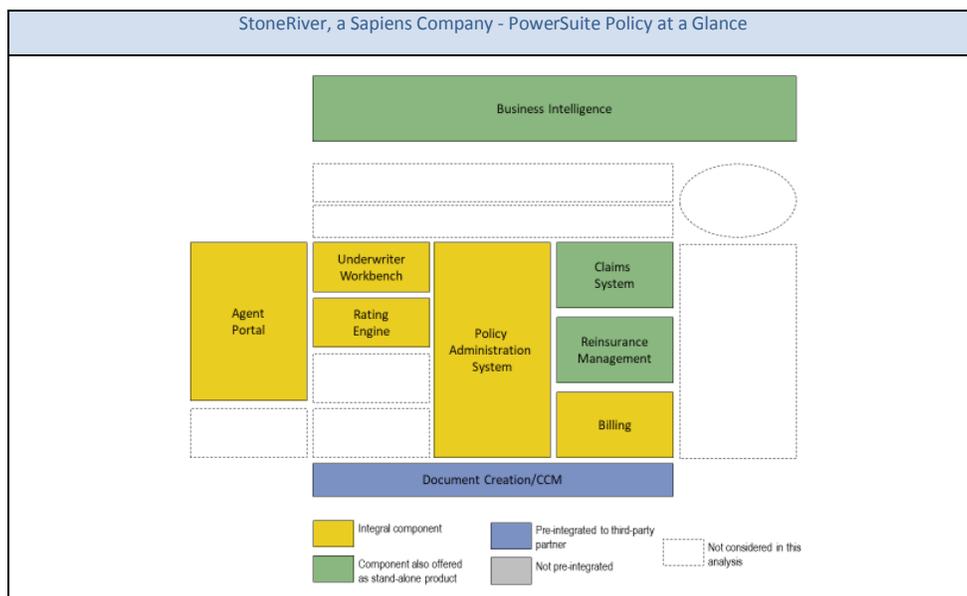
Additional Options may be available soon, come back as often as you wish!

Log Off

## STONERIVER, A SAPIENS COMPANY - POWERSUITE POLICY

### Executive Summary

- StoneRiver is a Sapiens company. Sapiens (SPNS) is a global provider of software solutions for insurance, offering core, end-to-end solutions for general insurance, property and casualty, life, pension and annuities, reinsurance and retirement markets, workers' compensation, financial/compliance, and business decision management software. It has more than 400 customers worldwide and approximately 2,500 professionals operating through its fully owned subsidiaries in North America, the UK, EMEA, and Asia Pacific.
- Sapiens has its global headquarters in Holon; North American headquarters are in Denver, CO. Sapiens employs 2,500 people, and its annual revenue is in the range of \$100M-\$250M.
- PowerSuite Policy is a suite of solutions that includes core policy features, rating, underwriter workbench, agent portal, reinsurance, billing, business intelligence, and claims.
- It currently has 19 live US/Canadian insurer clients using the suite, most of which are smaller companies (under \$1B) and all of which are using the solution in commercial lines.
- Publicly announced clients include BrickStreet Mutual, W.R. Berkley, Wyoming Workers' Safety and Compensation Division, Ohio Bureau of Workers' Compensation, and Midwest Insurance.
- The solution is designed specifically for workers' comp and has live clients in 10-49 US states.
- The solution is browser-based for all user interface functions. It is written in Java.
- Configuration for insurance products, screens, workflows, rules, and document authoring is via tools intended for IT analysts or BAs. Configuration for interfaces is via developer tools, XML manipulation, or a scripting language.
- Implementation is available through StoneRiver's resources or a partner. The solution can be deployed on premise or hosted at a private data center or MS Azure. A SaaS delivery model is hosted with a subscription license that includes maintenance and upgrades.
- The company reports that average time to go-live is nine months or less and that the average cost for the middle 50% of the client base is \$1M-\$2M.



## Lines of Business Supported

<b>Personal auto:</b>	Not currently supported
<b>Homeowners:</b>	Not currently supported
<b>Personal umbrella:</b>	Not currently supported
<b>Dwelling fire:</b>	Not currently supported
<b>Boatowners:</b>	Not currently supported
<b>Personal package:</b>	Not currently supported
<b>Commercial property:</b>	Not currently supported
<b>General liability:</b>	Not currently supported
<b>BOP:</b>	Not currently supported
<b>Commercial crime:</b>	Not currently supported
<b>Commercial auto:</b>	Not currently supported
<b>E&amp;O/D&amp;O:</b>	Not currently supported
<b>Inland marine:</b>	Not currently supported
<b>Professional liability (including medical malpractice):</b>	Not currently supported
<b>Commercial package:</b>	Not currently supported
<b>Specialty:</b>	Not currently supported
<b>Workers' comp:</b>	Live clients offering this product in 10-49 US states
<b>Surety:</b>	Not currently supported
<b>Other personal lines:</b>	Not currently supported
<b>Other commercial lines:</b>	Not currently supported

## Client Base

Globally, StoneRiver has 19 clients live on PowerSuite Policy, all of which are insurer clients (not MGAs, self-insureds, etc.) in the US and Canada. Most of these clients are smaller companies (under \$1B), and all using the solution in commercial lines. Some of the clients use the solution as a stand-alone system (rather than as part of a suite).

Publicly announced clients include BrickStreet Mutual, W.R. Berkley, Wyoming Workers' Safety and Compensation Division, Ohio Bureau of Workers' Compensation, and Midwest Insurance.

## Key Functions and Differentiators

StoneRiver cites the key functions of PowerSuite Policy as:

- Loss prevention component for identifying, making assignments, creating action plans, and tracking recommendations
- Easy one-click access to information
- Rules-driven, automated, and exception-based underwriting
- Supports complex policies, i.e., PEOs, federal coverages, and loss-sensitive rating plans (retrospective rating and large deductibles)
- Market-leading architecture

The company cites as its key differentiators that the solution is built specifically for workers' compensation; its multi-channel distribution capabilities; its powerful, integral workflow tool; speed to market; and its on-premise or cloud deployment options.

## **Solution Architecture and History**

PowerSuite Policy was launched in 1995 and re-architected in 2006. The latest release was in December 2017. StoneRiver reports that 20% of the solution's customers are on the latest version, 40% are on a recent version released in the last three years, and 40% are on a version older than three years. Approximately 90% of customers have been through at least one upgrade. DB2/UDB, Oracle, and Microsoft SQL Server databases are supported, as are UNIX/Linux and Windows server platforms. The solution is written in Java.

## **Configurability and User Interface**

PowerSuite Policy is browser-based for all user interface functions. The solution offers mobile capabilities through an HTML5 user interface optimized for mobile use. Clients are not allowed to touch core code, but hooks have been provided to call external custom code. PowerSuite Policy's configuration tools are designed to be used by non-IT staff. Configuration for insurance products, screens, workflows, rules, and document authoring is via tools intended for IT analysts or BAs. Configuration for interfaces is via developer tools, XML manipulation, or a scripting language.

## **Deployment Options**

StoneRiver offers on-premise, hosted at a private data center, and hosted on MS Azure deployment options for PowerSuite Policy. A SaaS delivery model is hosted with a subscription license that includes maintenance and upgrades.

## **Average Implementation Length and Cost**

StoneRiver implements the solution through the company's own resources or a partner. It reports that PowerSuite Policy can be ready for initial go-live in nine months or less and fully rolled out in an additional 12 months or less. The company reports that average implementation cost for the middle 50% of the client base is \$1M-\$2M.

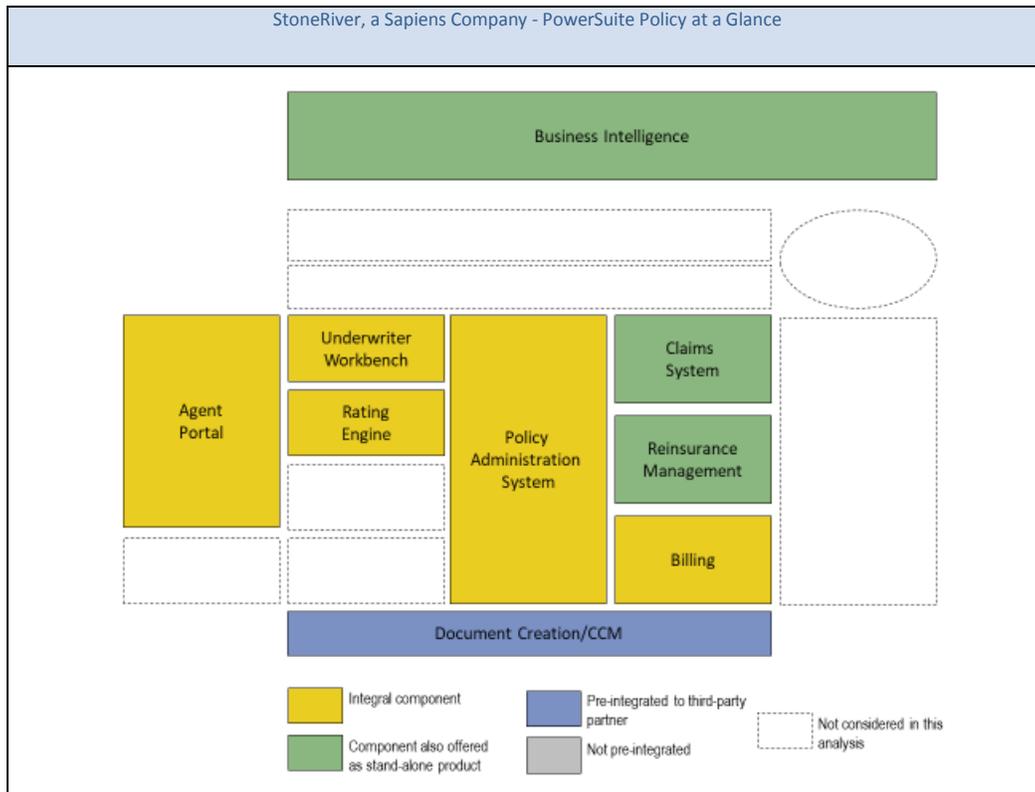
## **Support**

Of the 600 people employed at StoneRiver, Inc., specifically, for PowerSuite Policy there are between 100 and 250 employees each on the product design and engineering, implementation (not partnerships), and support teams. Support is provided primarily from Denver, CO. StoneRiver offers customer engagement initiatives such as an online community, online training, a customer advisory committee, and user events.

## **Partnerships**

Publicly announced partnerships include Inventive Designers (Scriptura Engage), Microsoft Azure (cloud), Pentaho (data integration), and MuleSoft (Mule ESB).

## Functionality



### Policy Administration Functions

The solution includes policy issue, premium accounting, and out-of-sequence endorsement out of the box with no configuration necessary. The solution includes manuscripted policies through configuration using simple tools targeted for IT analysts or BAs. The solution also includes forms management via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include bordereaux import.

All of the following are independent objects in the solution's data model: policy, product, policyholder, individual, distributor, and insured.

### Rating Functions

A rating engine is integral to the suite and is not marketed as a stand-alone solution. Core rating functions like support for after-inception policy rating for endorsements, cancellations and reinstatements, and renewal processing; out-of-sequence endorsements; rating multiple coverage/quote alternatives; and multi-line, multi-state, and multi-location rating on a single policy are all standard. Currently, the solution doesn't include a quick quote option.

Compliance and change control functions like versioning and update management; change control functions; and auditability of rate versioning are all standard. An application and forms library with standard and customizable applications and forms is also standard. Download to agency management systems is under development and should be available in less than six months. Pre-integration to third-party data providers is available with configuration using simple tools targeted for IT analysts or BAs.

ISO/NCCI partnership functions like NCCI/Bureau of Workers' Comp rates/rules support are standard. Currently, the solution doesn't include ISO rates/rules support, ISO-formatted statistical data, or ISO ERC integration.

Multicarrier features like multicarrier comparison and setting carrier-specific defaults are standard. Saving or storing an in-process or completed policy change transaction to allow issuance at a later date is also standard, as are product design and development tools.

Rule definition and management functions like maintaining rating algorithm definition and management separately from rate tables, rate table design and update management tools, the import/export of rating tables to/from spreadsheets (e.g., Excel), rating and rule definition and management (e.g., automatic driver assignment), and date management capabilities are all standard functions.

Finally, displacement testing (ability to run existing book of business through proposed rate/product changes to determine impact) and testing, modeling, and product analysis are not currently available.

### **Underwriter Workbench Functions**

Underwriting functions are integral to the suite and are not marketed as a stand-alone solution. Uploading/importing the submission data from a structured data feed is a standard function. Uploading/importing the submission information from documents (OCR-like functionality) is available via out-of-the-box integration to a third-party system or service.

Functions like supporting new business transactions/underwriting, supporting policy change transactions/underwriting, supporting renewal transactions/underwriting, supporting the non-renewal transaction, supporting the cancellation transaction, and supporting underwriting multiple submissions as one work portfolio are all standard.

Capabilities like capturing underwriting analysis; capturing an underwriter's loss analysis; underwriter checklists that can validate information completeness and process completeness; submission rating; pricing analysis and scheduled rating information; and providing a single current and historical view of the insured's account across the enterprise, lines of business, and policy systems are all standard functions. Currently, the solution doesn't include allowing individual quotes for different lines to be combined into a single proposal.

Document creation (proposals, applications, correspondence) and document storage functions are available via out-of-the-box integration to a third-party system or service.

Functions like rules engines that automatically apply underwriting, workflow, and general business rules; workflow/task capabilities (inbox, predefined workflows by transaction or line of business, automatic task assignment, diaries, etc.); and rules engines that interface to conditionally order specific data are all standard.

The solution also includes inline reports/dashboards on tasks/work/work status, inline reports/dashboards to support underwriting analysis, and displaying aggregate risk accumulations for the existing book at a granular location level (i.e., geo-mashup of existing book and proposed risk) via out-of-the-box integration to a third-party system or service.

The company reports that IM collaboration with other underwriters is under development and will be available in less than six months. Proposal co-authoring with other underwriters is a standard function, as are screen sharing with other underwriters and agent-facing capabilities.

Support for variable binding/approval authority by role and support for email notification/communication with agents and underwriters within the system (retaining a record of all emails) are standard functions.

Finally, preconfigured integration with business intelligence environments is a standard function. Other capabilities including preconfigured interfaces with third-party data services are available with configuration using simple tools targeted for IT analysts or BAs. The solution also includes preconfigured interfaces with agent portals, natively calculated predictive scores, and preconfigured interfaces with external predictive scoring models via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include preconfigured interfaces with policy admin systems.

### **Document Functions**

The company reports that document creation capabilities are provided via pre-integration with Scriptura Engage, GhostDraft, or Adobe.

### **Agent Portal Functions**

PowerSuite Portal is integral to the suite and is not marketed as a stand-alone solution. P/C portal functionality like new business entry/submission, account clearance, policy change entry/submission, online payment, renewal quote entry/submission, policy inquiry, billing inquiry, claims inquiry, proposal creation, side-by-side quote comparison, account or client view in addition to a policy view, underwriter view and/or tools, and rating engine are all standard functions.

StoneRiver reports that that functionality like uploading/importing data from Excel (e.g., locations, cars, drivers), quick quote, integration and pre-fill with data services, policy transaction history inquiry, ACORD application creation, agency management system upload, and agent/underwriter collaboration are under development and should be available in less than six months.

Finally, capabilities like scheduling, diary, and calendar functions; workflow and task management capabilities; and a consumer portal are standard functions. The solution also includes support for e-signature, document creation, and business intelligence and reporting via out-of-the-box integration to a third-party system or service. The company notes that file attachment support is under development and will be available in less than six months.

### **Reinsurance Functions**

URS is part of the suite and is also sold as a stand-alone reinsurance component.

The solution includes ceded reinsurance management functions like the manual entry and tracking of cessions, reserves, and limits; automated notification if a reserve reaches a specific amount or treaties approach set limits; and automated identification/calculation of accounts with applicable reinsurance out of the box with no configuration necessary.

The solution includes assumed reinsurance management functions like the manual entry and tracking of assumed reinsurance contracts, automated assumed reinsurance calculations based on reinsured data feeds/connections, and retrocession reinsurance management out of the box with no configuration necessary.

Contract management functions like treaty management; facultative management; proportional support; non-proportional/excess of loss; multiple basis types (risks attaching, losses occurring, and claims made); retroactively processing late placements or mid-term contract changes; and configuration of contract rules, formulas, and types are all standard. An end-user interface for manual entry of contracts, for manual flagging of premiums and claims subject to reinsurance, and for review and approval of assumed policies as part of facultative contracts all out of the box with no configuration necessary.

Integration capabilities like batch file import/export for integration to other systems are standard. Other integration capabilities including real-time data intake from core systems (PAS, claims) via API or other mechanism and real-time integration to an underwriting system (e.g., to display limits/reserves) are available with configuration using simple tools targeted for IT analysts or BAs. Integration between other insurer/reinsurer systems is available with configuration using developer tools, XML manipulation, or a scripting language. Reporting functions like statutory and regulatory reporting; a standard library of canned reports; automated Schedule F reporting; automated bordereau reporting; ad hoc reporting, and integrated analytics for profitability analysis, exposure, "what-if" analysis, risk profile, etc. are all standard.

Claim management functions include automated recoverable claims identification and viewing the full history and status of claims and claim recovery out of the box with no configuration necessary. Additional features and components like tracking reinsurance payables and receivables, entity management (CRM), multi-currency support, and an audit trail for all transactions are all standard functions. Document management and storage of the actual contracts are available via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include multi-language support.

### **Business Intelligence Functions**

The company pre-integrates 4Sight Business Intelligence's solution for business intelligence functionality within the suite; 4Sight BI is also marketed as a stand-alone solution. The solution has a normalized, transactional model for staging, operational data store, and enterprise data warehouse. It has a dimensional data model for data marts/cubes. These data models support all ANSI SQL databases, including MS-SQL, Oracle, DB2, HP Vertica, and Hadoop databases.

4SightBI functions include tools to support data governance and maintaining data dictionaries; tools to support data quality, validation, and augmentation; extract, transform, and load (ETL) capabilities; a presentation/reporting component; standard predefined reports; an ad hoc reporting tool; data mining and analytics tools; predefined, insurance-specific dashboards; and report scheduling and delivery capabilities.

The solution supports the customization of the data model by including pre-defined custom fields. The 4Sight BI data model also includes elements related to agency/producer, submission/quote, customer, policy, billing, claims, financials, reinsurance, and workflow metrics.

## Billing Functions

Billing is integral to the suite and is not marketed as a stand-alone solution. Payment and billing plan configurability are standard functions. The table below shows the availability of other billing functions.

<b>Direct bill:</b>	Available out of the box with no configuration necessary
<b>Agency bill:</b>	Currently not available, but could be available with a system enhancement
<b>Account or list bill:</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Third-party (i.e. mortgagee) bill:</b>	Not applicable
<b>Split or multi-payer bill:</b>	Current not available, but could be available with a system enhancement
<b>Flexible and configurable payment plans:</b>	Available out of the box with no configuration necessary
<b>Support for flexible payment types (e.g. payment card, check, EFT, payroll deduction):</b>	Available out of the box with no configuration necessary
<b>Automated rules for payment application and disbursements:</b>	Available out of the box with no configuration necessary
<b>Real-time account and payment calculation, scheduling, recalculation, and rescheduling:</b>	Available out of the box with no configuration necessary
<b>Commission calculation and payment:</b>	Available out of the box with no configuration necessary
<b>Collections activities and interfaces:</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Equity billing support:</b>	Currently not available, but could be available with a system enhancement
<b>Automated workflow and task management:</b>	Available out of the box with no configuration necessary
<b>Electronic bill presentment:</b>	Available out of the box with no configuration necessary
<b>Agent portal:</b>	Available out of the box with no configuration necessary
<b>Consumer portal:</b>	Available out of the box with no configuration necessary
<b>Online payment:</b>	Available out of the box with no configuration necessary
<b>Out-of-the-box integration with banks/credit card companies for token-based processing:</b>	Yes
<b>Payroll deduction:</b>	Currently not available, but could be available with a system enhancement
<b>Billing dashboarding/reporting:</b>	Available via out-of-the-box integration to a third-party system or service
<b>Pay-as-you-report for workers' comp:</b>	Available via out-of-the-box integration to a third-party system or service
<b>Invoice and correspondence:</b>	Available out of the box with no configuration necessary
<b>Check generation/production:</b>	Available via out-of-the-box integration to a third-party system or service
<b>Billing for non-premium receivables (such as claims deductibles paid):</b>	Available out of the box with no configuration necessary
<b>Payment of non-refund payables (such as policy dividends or mutual dividends):</b>	Available with configuration using simple tools targeted for IT analysts or BAs
<b>Multi-currency support in a single instance of the application:</b>	No

## **Claims Functions**

PowerSuite Claims is part of the suite and is also sold as a stand-alone claims component.

### ***Adjudication***

Capabilities like medical case management, injury detail maintenance (coding), disability management, automated coverage verification, aggregate tracking (erosion of policy limits), and deductible tracking are all standard functions.

### ***Catastrophe***

Catastrophe definition and automatic identification of catastrophe claims are all standard functions. The solution also includes mapping tools via out-of-the-box integration to a third-party system or service. Currently, the solution doesn't include attaching multiple LOBs and multiple causes of loss to a single catastrophe.

### ***Disbursements***

Check processing; calculating and scheduling recurring payments; calculating partial or one-off payments; accommodating multiple pay parties (e.g., garnishments); combining multiple pending payments for a single client into one disbursement; and handling multiple offsets and deductions against benefits (e.g., wage garnishments, child support, etc.) are all standard functions. The solution includes OFAC checking via out-of-the-box integration to a third-party system or service.

### ***Documents***

The solution also includes image and media management, a correspondence or forms library, state-specific claims reporting templates; document rendering, a content repository and content management tools, and multi-channel delivery and output of documents (including PDF, email, Web, and print) via out-of-the-box integration to a third-party system or service.

### ***FNOL***

Capabilities like recording and storage of new loss notices (including FROI/SROI) from a Web portal, email, fax, or manual entry; handling of FROI/SROI EDI reporting; scripting for claims intake with reflexive questioning; claim characteristics scoring (to calculate alerts, trigger workflow, assign a claims handler, or otherwise segment the claim); claimant contact management data capture; and checking for duplicate claims are all standard functions. Other capabilities including mobile and smart device input; customized question sets to prompt mandatory additional questions depending on the answers given (branch scripting); and integration with external vendors and services, such as car rental companies or repair (car, equipment) shops, are available with configuration using simple tools targeted for IT analysts or BAs.

### ***Fraud***

Capabilities like configurable business rules and tasks (specific to fraud and special investigations) are standard, while provision of multiple search and reporting criteria for fraud detection via the ability to track common clients across multiple claims is available with configuration using simple tools targeted for IT analysts or BAs.

### ***Litigation***

Capabilities like litigation process tracking, including negotiation details and litigation costs, and creating separate tasks, workflow, diaries, and business rules for litigated cases to allow legal case management are all standard functions.

### ***Multi-Channel***

StoneRiver reports that an agent portal and a policyholder portal with self service are under development and will be available in under six months. The solution includes e-signature capability, call center integration for FNOL via telephony, and call center integration for claims status check via telephony via out-of-the-box integration to a third-party system or service.

### ***Reinsurance***

Identifying claims subject to reinsurance through multiple dimensions (e.g., type of claim, limit, location, etc.) is available with configuration using simple tools targeted for IT analysts or BAs. Currently, the solution doesn't include assignment to reinsurance treaties and assignment to facultative arrangements.

### ***Reporting***

Capabilities like standard reporting of claims performance monitoring, including claims handling, and high-risk indicators such as fatality, large losses, and fraud; standard reporting of configurable metrics for claims reporting; and electronic reporting or automated state filings are all standard functions. The solution also ad hoc reports, dashboards, and reporting that includes jurisdictional-specific reports and forms via out-of-the-box integration to a third-party system or service.

### ***Reserves, Recoveries, Subrogation***

Creating separate tasks, workflow, diaries, and business rules for subrogated cases; automatic subrogation identification; subrogation billing and the production of correct GL entries; granular tracking of reserves and payments; automatic reserve calculations using business rules and risk characteristics; direct, case, average, factor, and expense reserve types; and jurisdictional wage and rate calculations integrated for workers' comp are all standard functions.

### ***Vendor Management***

Vendor management functions and capabilities for processing required forms (including 1099s) are standard.

### ***Workflow***

Capabilities like automated workflow/task generation; overriding automated processes and manually triggering workflow processes; automatic work assignment based on configurable rules; generating notes, diaries, and reminders; assigning multiple adjusters to a single claim; and processing claim workflow trigger (CWT) files at insurer-defined intervals are all standard functions. Other capabilities including full integration with electronic court filings (ECF2) are available with configuration using developer tools, XML manipulation, or a scripting language. The solution also includes OCR-triggered workflow and inclusion of external documents (letters and pictures) in file notes via out-of-the-box integration to a third-party system or service. Compliance with the Document Repository Interface (DRI) standards are not currently available.

## CONCLUSIONS

Insurers have an increasingly rich vendor market to select from when considering providers of policy administration solutions. Modern property and casualty solutions are maturing, giving carriers better options than ever before.

Novarica research indicates that many initial deployments are taking approximately two years, with full deployments taking up to five years. While challenges still exist with conversion and managing overall project risks, insurers are realizing benefits in efficiency of operations, improved functional capabilities and better data management, which are often cited as key drivers for these projects.

We recommend that insurers who are looking for a partner narrow the overall market to a short-list of three or four by focusing on four main areas: **staff**, **organization**, **functionality**, and **technology**, easily remembered by the acronym **SOFT**.

- *Staff*
  - Does the vendor's staff have the right skills and experience?
  - How well are they likely to understand your needs?
  - What resources are available for implementation and support?
  - What assurances will you have that the staff you meet during the sales process will really be the staff that you work with?
  
- *Organization*
  - How stable is the organization?
  - Is it big enough for your company to do business with?
  - Who are their other clients?
  - How focused are they on the insurance industry?
  
- *Functionality*
  - Does the solution and services support your needs for modeling services, lines of business, states, and model maintenance that you need?
  - Which solutions and services are actually live at reference clients?
  
- *Technology*
  - Is the solution's technical architecture compatible with your enterprise standards (or can you build your enterprise standards around the solution's technical architecture)?
  - Does your IT staff have the skills to support it?

Using a handful of questions in each of these categories, insurers should be able to narrow their range of potential suppliers to a handful of candidates. This approach is also much faster and more effective than distributing a large RFP, which can be avoided altogether or saved for the final one or two potential suppliers after all the other evaluations have been completed.

## NEXT STEPS AND RELATED RESEARCH

- Contact Novarica at [client-support@novarica.com](mailto:client-support@novarica.com) to set up a conversation to discuss this topic.
- Read related reports:
  - [Insurer IT Budgets and Projects 2018](#)
  - [The Novarica New Normal For P/C Insurers: 100 Data, Digital, and Core Capabilities](#)
  - [13 Things Not To Do When Replacing Policy Administration Systems](#)

## ABOUT NOVARICA

Novarica helps more than 100 insurers make better decisions about technology projects and strategy through research, advisory services, and consulting.

We serve clients in life/annuity/retirement, property/casualty, workers' compensation, and reinsurance. Our clients range from Fortune 100 insurers to small regionals and specialty companies. Although most of our clients prefer to us to keep their names confidential, a partial client roster includes Amica, GenRe, Penn Mutual, ProSight, SECURA, SunLife, and XL Catlin.

Our senior team has direct experience as senior IT executives at firms including AIG, Arbella, AXA, Guardian, Liberty Mutual, Marsh, Progressive, Prudential, and others.

We publish frequent, independent, in-depth research on trends, best practices, and vendors. Our research projects are directed by our senior team, and leverage the knowledge of more than 300 insurer CIO members of our Research Council. All reports are available to our clients without seat license restrictions.

Our Strategy-as-a-Service advisory services provide on-demand phone and email consultations on any topic in insurance or technology (as well as full access to our library). Our clients have told us it's like having a team of experts down the hall, for a flat annual fee that is a small fraction of the cost of a single employee.

Our consulting services include vendor selection, benchmarking, project assurance, and IT strategy development. They are based on our deep knowledgebase, extensive relationships, personal experience, and proven methodologies. Our clients get rapid, actionable insights and guidance, delivered directly by our senior team.

More information at [www.novarica.com](http://www.novarica.com).

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