

CELENT

CEDED REINSURANCE SOLUTIONS— GLOBAL EDITION

2023 Solutionscape: Powered by VendorMatch

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This is an authorized excerpt from a Celent report profiling Ceded Reinsurance solutions. The reprint was prepared for Sapiens but the analysis has not been changed. For more information about the full report, please contact Celent at info@celent.com

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EXECUTIVE SUMMARY

The core business of insurance companies is to manage the risks from the policies that they write. Often, to reduce their overall risk profile, they will transfer some amount of that risk to a reinsurer. In this context, primary insurers are defined as insurers that either do not usually assume reinsurance from other insurers or do so in amounts that are not financially material.

To serve this purpose, an insurer uses various techniques and reinsurance programs, which usually are supported by a system that is integrated to its core systems. A ceded reinsurance solution is platform that focuses on outward or ceding reinsurance contracts, and it may have limited or no functionality for assumed (inward) reinsurance.

Celent identifies six core functionalities that are typically imbedded in a ceded reinsurance solution: contract administration, reinsurance program management, calculation engine for premiums and commissions, calculation engine for claims, technical accounting, and financial accounting.

This report only includes solutions offered on a standalone basis. In other words, it does not cover end-to-end solutions which have embedded reinsurance functionality such as policy administration or claims systems that include some reinsurance functionality within them.

We asked firms that provide ceded reinsurance systems to enter information about their company and products into Celent's free digital catalog, VendorMatch (<https://www.celent.com/vendormatch>). This report presents certain extracts of that information. Additional details about each product are available in VendorMatch, subject to VendorMatch's terms of use.

This report should help insurers define their ceded reinsurance system requirements and can be used as the first step toward creating a short list of vendors for evaluation. Expanded reinsurance functionality and improved technology mean that insurers continue to have a wide spectrum of systems and vendors to consider when they are looking for a solution to fit their needs. Insurers can leverage their access to the authors through analyst access calls to learn more about the vendors.

INTRODUCTION

The world has no shortage of natural and manmade disasters. Shifting tectonic plates, aberrant weather patterns, increasing wildfires, domestic and international political instability, and even new technologies (e.g., nanotechnology, generative AI) present risks that insurers exist to mitigate. In this context, there are uncertainties attached to every book of business. There are also times when an insurer chooses to, or is forced to, accumulate and concentrate exposures beyond its risk tolerance and capital. For all of these reasons, nearly all insurers design and execute a reinsurance program.

The design of a reinsurance program—choosing a broker and reinsurance partners, types of reinsurance, lines covered, and so on—is a critical first step. Once the program is in place, the task turns to administration: accurately recording the structure of each reinsurance agreement, tracking claims, monitoring attachment points, creating and submitting bordereaux, and identifying and managing recoverables, often over a multiyear period.

Some insurers have managed their reinsurance program using worksheets and word processing programs. Some of these insurers have discovered that, at best, they could not provide accurate snapshots and projections to senior management, investors, and rating agencies; at worst, they have hundreds of millions of dollars of unrecoverable reinsurance recoverables or dubious out-of-compliance or illegal reinsurance contracts.

For all these reasons, there is increasing interest among primary insurers in reinsurance solutions that provide recordkeeping and execution capabilities to make reinsurance programs provide the value they were designed to do.

What are Ceded Reinsurance Administration Solutions?

Ceded reinsurance administration solutions are used to store and track information about reinsurance contracts in place, to identify policies that are covered by reinsurance, to calculate premiums and commissions, to identify claims that are covered by reinsurance and track the recoverables, and to provide the data needed for internal and regulatory reporting.

Increasingly, reinsurance administration impacts the overall success of an insurance company. Not only can reinsurance administration systems streamline and reduce the costs inherent in the reinsurance administration process, but they also impact a sizable asset on a carrier's balance sheet—recoverables. For many companies, reducing or eliminating the cost of leakage by finding recoverables, and the improved rate of return from earlier recoverable collections can generate sufficient returns to pay for the cost of the system.

An additional benefit of automation is improved compliance controls. Because reinsurance recoverables are reported as an admitted asset on the cedent's balance sheet, accurate tracking and reporting of recoverables are critical. And to comply with the attestations of the effectiveness of financial reporting controls, the ability to maintain historical and detailed information is key. Manual processes generally lack the capabilities to provide adequate auditing information and typically have a high risk for errors.

Reinsurance administration systems typically allow for much more detailed modeling and analysis of contracts to isolate unique insights in their data and to foster better decisions across the enterprise.

And the traditionally manual methods of reinsurance processing combined with the very nature of complexity inherent in multiple contracts means that knowledge preservation is tenuous. In many carriers, there are one or two gurus that understand everything about how the reinsurance program is put together. If that person leaves, the carrier will have a very difficult time recreating the underlying components of the program. Collecting and storing thorough data about the contracts in a system facilitates knowledge management and preservation for the carrier.

CEDED REINSURANCE ADMINISTRATION SYSTEMS—DEFINITIONS AND FUNCTIONALITY

A ceded reinsurance administration solution can be described as a system that supports the specification and use of reinsurance contracts by primary insurers. It should cover all types of reinsurance agreements—treaty and facultative, proportional and non-proportional—as well as all possible combinations of them. Many support property casualty only, but a few property/casualty ceded reinsurance solutions also cover life and health businesses.

Table 1: Type of Reinsurance

Type of contracts	Description
Treaty	<ul style="list-style-type: none"> A reinsurance agreement between the cedent (the primary insurer) and the reinsurer. It stipulates the specifics, conditions, and restrictions to the reinsurance coverage for a specified class (or classes) of business.
Facultative	<ul style="list-style-type: none"> An individually negotiated agreement between a reinsurer and a cedent specifying the reinsurance agreement for an individual policy.
Proportional	<ul style="list-style-type: none"> A reinsurance agreement between the cedent and the reinsurer to share a specified portion of all premiums and losses.
Non-proportional	<ul style="list-style-type: none"> A reinsurance agreement in which the reinsurer promises to cover all of, or a portion of, losses in excess the ceding insurer's retention.

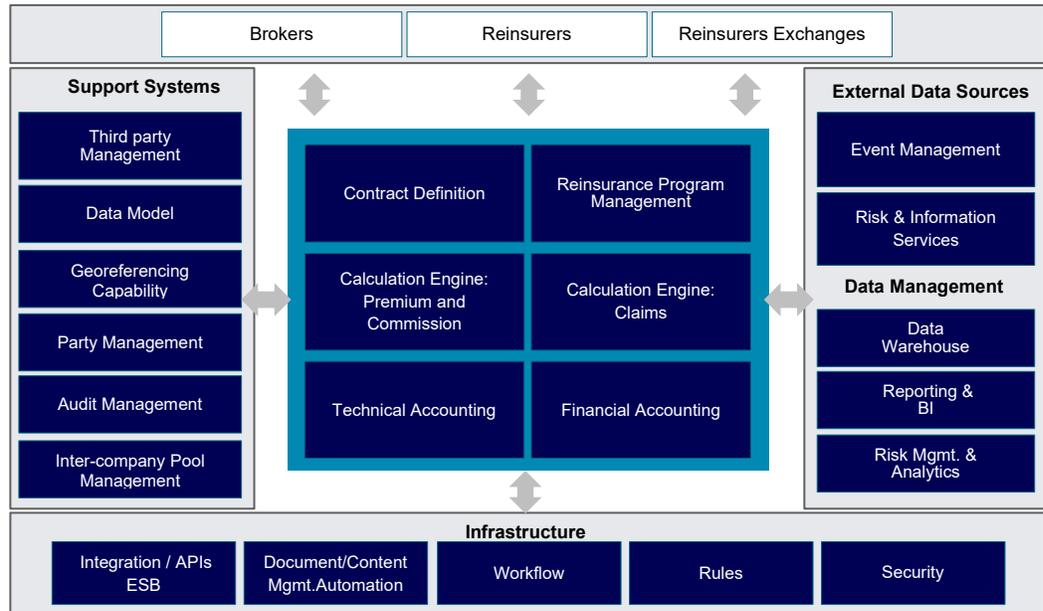
Source: Celent

Core Processes

An insurer uses a ceded reinsurance solution, either by itself or closely integrated with specific point solutions, to manage their reinsurance contracts, relying on several types of supporting capabilities.

Celent identifies six core functionalities that are typically imbedded in a ceded reinsurance solution: contract administration, program management, calculation engine for premiums and commissions, calculation engine for claims, technical accounting, and financial accounting.

Figure 1: Functionality



Source: Celent

As shown in Figure 1, the solution may interact with other internal and external systems outside the core functionality. These systems may be included in the solution itself as part of the package or may be part of it by the support of third parties. This will depend on the offerings of the vendors.

Table 2: External Elements Interacting with the Core Elements

External and supporting elements	Description
External Partners	<ul style="list-style-type: none"> Include: reinsurance brokers, reinsurers, and reinsurance exchanges that provide direct or indirect access to reinsurance coverage.
External Data Sources	<ul style="list-style-type: none"> Provide information about risks associated with ceded policies, e.g., catastrophic exposures and losses (hurricanes, acts of terrorism, etc.). Sources included are Event Management and Risk & Information Services.
Support Systems	<ul style="list-style-type: none"> Support systems manage certain foundational security, data, and party (entity) functions and provide a management view of the insurer’s entire reinsurance program. Supporting systems included are third party management, data model, georeferencing capability, reinsurance program, audit management, and intercompany pool management.
Data Management	<ul style="list-style-type: none"> Systems and capabilities to aggregate, analyze, and present operational and enterprise data regarding reinsurance activities and the insurer’s overall risk posture.

- These systems include data warehouse, reporting and BI, and risk management and analytics systems.

Infrastructure	<ul style="list-style-type: none"> • Systems and solutions that allow the ceded reinsurance system to call out to other systems' (and to expose its own) data and transactions—as well as to control certain processes, decisions, and document flows. • For example: APIs/integration, ESB, document automation, workflow, rules engines, and content management.
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Source: Celent

Insurers are looking for several key capabilities when they determine whether to invest in a new ceded reinsurance solution:

Transactional Servicing Features

A variety of features are available to handle the day-to-day transactional activities of ceded reinsurance systems. Insurers will want to make sure that the features available in the solution they choose will support their business goals both now and in the future.

Contract Definition: The system should be able to allow an insurer to define both simple and complex reinsurance contracts. Typical information will include the type of contract—e.g., facultative or treaty and quota share or Excess of Loss (XoL)—and details about whether the treaty is per risk, per occurrence, or per event. It will contain the definitions of the risk covered by the contract, such as the line of business, specific hazards, or physical characteristics of the risk (construction type, protection class, operations, and so on). And it will generally contain the terms of the contract, such as the attachment points (if XoL), quota share percentages, commissions, the contract period, currency, frequency of bordereau reports, claims notification requirements, and other specific terms that are needed to define the details of how the contract works. Many permit storage of the actual contract so that it can easily be accessed for referral in case of questions.

Reinsurance program management: The system should support the definition of complex reinsurance programs with multiple levels of inuring between Facultative, Quota Share, Excess of Loss, CAT XoL, and whole account Quota Share across common accounts. Many have visualization tools that depict how the contracts apply in order to identify any gaps or duplication.

Calculation Engine—Premiums and Commissions: One key functionality of a reinsurance administration system is the ability to identify and calculate cessions. Essentially, a reinsurance system will analyze the policy data and attach it to the reinsurance contract based on the terms and conditions of the contract. Some systems completely automate this function. A carrier simply sends a data feed to the reinsurance system from the policy system (or directly integrates), and the reinsurance system uses rules to identify all premiums subject to the contracts in the system. Other systems require the underwriter manually tag a policy on the front end when reinsurance applies. This allows the insurer to easily create bordereau reports. The calculation engine will also calculate the commissions due back to the insurer.

Calculation Engine—Claims: Along with calculating cessions, another key function of a reinsurance system is the calculation of recoverables. Again, the carrier simply sends a data feed to the reinsurance system from the Claims system (or directly integrates), and the reinsurance system uses the rules to identify all claims subject to the individual contracts in

the system and the order in which they apply across the full reinsurance program, then calculates the recoverables by contract. Automated identification and calculation of recoverables reduces or eliminates leakage by systematically identifying all claims subject to reinsurance.

Party management: Some of the complexity of managing reinsurance is a result of the multiple players involved in the contract. Whether it's one reinsurer or multiple reinsurers, a broker, a sub broker, or a banker, keeping track of who is involved on each contract on each layer can become cumbersome very quickly. Reinsurance administration systems store this information for easy access. As part of the contract definition, the solution should track the contact and demographic information about the reinsurers, reinsurers, brokers, Lloyds syndicates, pools, and other parties involved in the contract. Generally, the system will contain the information required for Schedule F (in the United States) and Solvency II (in the EU) reporting. Typical information includes the name and address of the party, the key contact at the party, the FEIN, and all financial detail required for transmitting data and funds accurately. Most have robust lookup capabilities to make it easy to quickly find the organization you're looking for.

Technical Accounting: Tracking receivables and payables is another critical feature of a strong reinsurance management system. Money flows in both directions as the insurer pays the reinsurer for the reinsurance and the reinsurer remits commission back to the insured—and pays the claims recoverables. Tracking each contract to ensure the insurer has received their funds and is current on their payable is a complex process. Reinsurance systems allow for automatic creation of bordereaux and other reports and typically support some level of cash management, including receipts, disbursements, cash application, and check details. They typically include multicurrency options and intercompany pooling.

Financial and Statutory Accounting: These systems also capture the data needed to prepare statutory, GAAP, and IFRS accounting reports, including Schedules F and P (in the US). Schedule F reporting may be included within the system or may be a separate module pulling data from a variety of sources and allowing manual adjustments.

Common Functionality

There are a variety of functions that are not specific to the reinsurance process but can generally be found in a ceded reinsurance system.

Document Creation and Management: Some of the solutions have a minimal level of document support, including a correspondence or forms library to create common forms and letters such as bordereau reports, claims requests, and billing statements. Some allow the attachment of documents, such as copies of the original contracts. Many integrate to third party solutions to provide additional capabilities when the built-in solutions are not robust enough to handle an insurer's needs.

Statutory & Management Reporting are sometimes included within a system and sometimes provided as separate modules. Most systems include a certain number of canned reports, such as statements of accounts, loss notices, bordereaux, underwriting, and financial analyses, as well as ad hoc reporting capabilities. Ad hoc reporting is often used to provide a full history and status of a claim—the amount, the layers, and the participants—allowing a fast response to questions like: How did it cede? Where is it now? Have we received the

recovery? Most systems allow you to create groupings for cats as well for an easy look at the aggregate amount of the cat and application of the retention or limits.

Data can typically be extracted and saved to Excel worksheets. Reporting capabilities vary widely across solutions. Virtually all solutions integrate to a third party reporting tool. Some solutions use open-source reporting tools, and some have solutions built in-house.

Analytics: “What-if” modeling and analytics modules are included in some solutions, allowing companies to monitor and evaluate the results of different reinsurance programs, structures, and contracts. Insurers can model different contract types, attachment points, inurements, and other aspects of the reinsurance program to optimize their use of reinsurance across their book of business. Ad hoc capabilities vary widely. Some are quite easy to use, with the ability to drag and drop data elements and build a report very simply. Many include dashboards with graphical views of data, and many of those include drill-down capabilities.

Technical Functionality

While assessing features and functionality is a critical step in selecting a ceded reinsurance system, there are several technical considerations to be considered as well.

Configuration Tools: A general trend in insurance software is allowing carriers to modify the system via tools rather than code. The most robust configuration tools let carriers add data elements, create business rules, modify workflows, create forms, create screens, modify the user interface, and even map interfaces easily. Some tools are extremely intuitive, with drag-and-drop and point-and-click capabilities. Others require knowledge of a scripting language to make changes. Many vendors are moving toward a dual-development environment, with simplified tools and wizards so business analysts can make general changes and a more robust environment for technical staff to use.

Business Rules: Look for the ability to design and execute business rules and underwriting rules that are separate from the core program code. Carriers should assess the ability to reuse and share rules. Some tools are intuitive and use natural language; others require knowledge of scripting. Some have Visio-like visualization tools with which carriers can build business rules. Some solutions include a searchable and version-controlled rules repository. A few solutions even offer tools to help carriers conduct an impact analysis of the rules or traceability tools to help them understand how and when rules are being used. Since many carriers create hundreds or thousands of rules, there should be a strong rules management environment with a well-organized repository, version control and version storage, and so on.

Data: Data is growing in importance for carriers, and software vendors are acknowledging this by building in more tools to help carriers with their data needs. Some solutions deliver a certain number of extra fields that users can modify for their own use. More common are configuration tools that allow easy creation of data elements, including the ability to mask data, encrypt data, and add context-specific help text, while also permitting modification of the data model.

Release Management: Some solutions include workflow capabilities to handle the release management within the policy admin system. Some feature full ticket management. Look for the ability to package a group of changes or filings together that you can manage as a release, as well as the ability to assign and track the work packets.

Security: Security is becoming increasingly important to insurers. Ask about the security standards the vendor complies with, and which certification and assurance methods are used. Take a look at how the system handles security for managing APIs for application-level integration. Look at which authentication capabilities the system leverages for internal and external users. There is a broad range of capabilities, ranging from one-time passwords, security tokens/PINS, multifactor authentication, and federated identity support all the way up to biometric security support. With regard to cybersecurity, look for whether the software has penetration security and how the system has been tested.

Scalability: Ceded reinsurance vendors differ regarding their proven performance related to the volume of data and transactions (policies, claims, and contracts) handled successfully. All can offer the results of stress testing performed in laboratories, but the best evidence is from installed reference accounts, which handle volumes equal to or near expected transaction and inquiry counts.

Integration: Ceded reinsurance systems integrate to multiple internal systems and third-party systems. Most solutions have a variety of ways of handling integration, with many using APIs as the common standard. Most systems have some kind of accelerator or experience integrating to the most common policy admin systems, claims systems, and general ledgers.

Implementation: Vendors use a wide variety of implementation methodologies. Some prefer to handle all of the implementation themselves. Others prefer to work with third party system integrators. More vendors are moving to an agile or hybrid methodology. Look to see what methodology the vendor uses and how it aligns with your preferred methodology. Some vendors excel at helping carriers transition to an agile approach. Look for the artifacts they have available for gathering requirements and capturing business rules. Vendors claiming very fast implementation timeframes may indeed have better artifacts and more configurable solutions, or they may be touting very simple single-product implementation with little or no configuration. Conduct customer reference checks to understand how well the vendor handles project management, knowledge transfer, and scope creep with carriers of a similar size and complexity as your company.

Cloud: Few technologies are as talked about as cloud computing. Cloud-enabled solutions are on the rise, with many of the responding vendors reporting that they have cloud-enabled core systems. Multiple variations of “cloud” are available. Many vendors offer a hosted version of their software, which is licensed by the carrier and hosted by the vendor in its own data center or in a private data center. Increasingly, software is being hosted in a public data center such as AWS or Azure. Look for the level of managed services available if you are interested in this option. Additionally, look to see if the solution includes cloud-native features such as dynamic scaling or AI or machine learning modules. Amazon, Microsoft, and other cloud vendors often include additional support to help insurers use cloud capabilities reliably and efficiently while finding smart ways to manage the costs.

SOURCE: CELENT REPORT METHODOLOGY

Approach

To analyze the capabilities of ceded reinsurance solutions that are active in the insurance marketplace, Celent sent an invitation to a broad set of ceded reinsurance vendors to participate in this year's report. There was no cost for vendors to participate.

Each participating vendor completed an online RFI in Celent's VendorMatch/RFX platform. The RFI requested information about features provided in the solution, the technology and architecture, the current client base, pricing models, and the vendor itself. RFIs were completed on 12 products available throughout the world.

Celent used that data to draft a profile but did not independently confirm the information provided by the vendors. Vendors had an opportunity to review their profiles for factual accuracy. Some of the vendors profiled in this report are Celent clients, and some are not. No preference was given to Celent clients for inclusion in either the report or the subsequent profile.

About the Profiles

Each profile is structured the same way. Profiles present information about the vendor and its ceded reinsurance offerings, geographic presence, and client base. Charts are used to provide more detailed information about specific features, such as lines of business supported, technology, and partnerships.

The profiles are presented in alphabetical order.

Limitations

Celent believes that this study provides valuable insights into current offerings in ceded reinsurance solutions. However, readers are encouraged to consider these results in the following context. The vendors self-reported. Participants in the study were asked to indicate which ceded reinsurance capabilities are provided in addition to providing generic information about their client base. While this information was supplemented with publicly available information where possible, Celent did not confirm the details provided by the participants.

CELENT TECHNICAL CAPABILITY MATRIX

New to Celent's solution reports this year is the Technical Capability Matrix. We have placed each solution into one of five categories based on the sophistication and breadth of its technology and functionality. Solutions are not ranked within the assigned category; they are listed alphabetically.

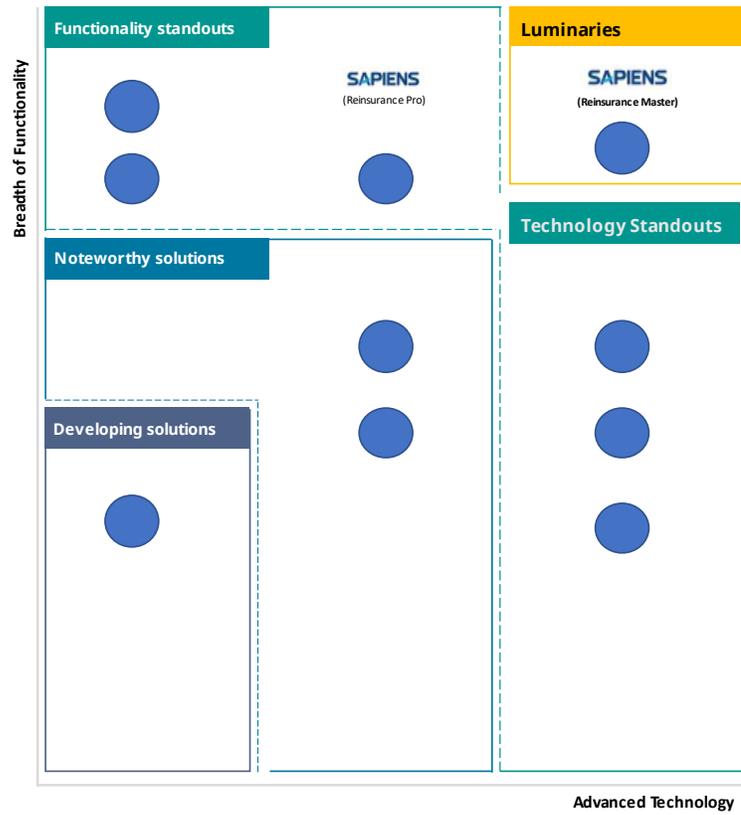
Advanced Technology takes into account factors such as the modernity of the code base, the support for APIs, the use of microservices, the configurability of the system and how the system handles integration—among other factors.

Breadth of Functionality looks at factors such as the availability of the features we survey against, their production status, and the level of usage of those features—among other factors.

The five categories are:

- **Luminary:** Excels on both Advanced Technology and Breadth of Functionality.
- **Technology Standout:** Excels in Advanced Technology but doesn't yet have as many features as leading competitors (low on Breadth of Functionality). Often newer, these solutions typically have chosen a focused set of functionalities to begin their journey.
- **Functionality Standout:** Excels in Breadth of Functionality, but the technology isn't as advanced as leading competitors. Often more established, these solutions have built out a robust set of features with technology that may not be cutting-edge.
- **Noteworthy Solution:** Relatively lower on both dimensions, yet still worthy of consideration by some financial institutions.
- **Developing Solution:** Low on both Advanced Technology and Breadth of Functionality. Often a new solution. Has the potential to mature into a more robust offering over time.

Table 3: Celent Technical Capability Matrix



Source: Celent

VENDOR PROFILES

The Vendors

This section provides information about each vendor's client base and how those clients are segmented by size and by geography.

Table 4: Ceded Reinsurance Solution Vendors

Vendor Name	Product Name	Location	Ownership	Revenue	Employees
Sapiens ReinsuranceMaster	Sapiens ReinsuranceMaster	Holon, Israel	Public company	\$475,000,000	5,000
Sapiens ReinsurancePro	Sapiens ReinsurancePro	Holon, Israel	Public company	\$475,000,000	5,000

Source: Celent VendorMatch

Table 5: Overview of Ceded Reinsurance Solutions

Vendor	Product Name	Was the solution acquired?	Year of Original Release	First year product was in production	Current Release
Sapiens ReinsuranceMaster	Sapiens ReinsuranceMaster	No	2005	2007	8.4
Sapiens ReinsurancePro	Sapiens ReinsurancePro	Yes	1982	1982	8.0.14

Source: Celent VendorMatch

Table 6: Customer Counts by Size of Insurer

	Insurers					Agents/Brokers	Reinsurers	MGAs
	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5			
Sapiens ReinsuranceMaster	4	4	2	1	0	0	0	0
Sapiens ReinsurancePro	6	10	9	10	8	0	2	0

Source: Celent VendorMatch

Table 7: Customers by Geographic Region

Vendor	North America	Europe, Middle East, and Africa	Asia-Pacific	Latin America
Sapiens ReinsuranceMaster	8	1	2	0
Sapiens ReinsurancePro	45	0	0	0

Source: Celent VendorMatch

Table 8: Customers by Line of Business

Vendor	Property Casualty	Life
Sapiens ReinsuranceMaster	11	0
Sapiens ReinsurancePro	45	0

Source: Celent VendorMatch

Table 9: Percentage of Customers by Deployment Option

Vendor	On-Premises at			Cloud	
	Customer	Partner	Vendor	Private	Public
Sapiens ReinsuranceMaster	71%	0%	4%	0%	25%
Sapiens ReinsurancePro	47%	0%	0%	0%	53%

Source: Celent VendorMatch

PROFILES

About the Profiles

Each profile presents information about the vendor and solution, professional services and support capabilities, customer base, functionality and lines of business deployed, technology and partnerships, and implementations and cost.

Each profile includes a table outlining the available end-to-end components and the features and functions available within the systems. The profiles also include a list of in-production and supported lines of business and the number of clients currently using the system for those products. Additionally, the profiles include a table of technology options.

Concerning implementation costs and fees, Celent asked vendors to provide first-year total cost of ownership of their current client base for costs associated with software license, initial installation, customization, annual maintenance, and training.

SAPIENS: SAPIENS REINSURANCEMASTER

Company and Product Snapshot

Table 10: Company Snapshot

Year Founded	1982
Headquarters	Holon, Israel
Number of Employees	5,000
Revenues (USD)	\$464 million Financial statements can be found at https://www.sapiens.com/investor-relations/sec-filings/
Financial Structure	Public company NASDAQ: SPNS
VendorMatch Link	https://www.celent.com/vendormatch/discovery/solutions/273098510

Source: Vendor RFI

Table 11: Product Snapshot

Name	Sapiens ReinsuranceMaster
Year Originally Released	2005
Current Release and Date of Release	8.3/2022
Revenue Derived from the Product	Financial statements can be found at https://www.sapiens.com/investor-relations/sec-filings/
R&D Expense	Sapiens typically invests 14% of its revenue in R&D
Notable Clients	RSA, Chubb, Generali

Source: Vendor RFI

Functionality

Table 12: Functionality

Category	Function	Availability
Contracts management	Proportional treaties quota share	●
	Proportional treaties surplus share	●
	Proportional FAC	●

Category	Function	Availability
	XOL treaties – per risk	●
	XOL treaties – per occurrence	●
	XOL treaties – per event	●
	XOL FAC	●
	Facultative obligatory	●
Reinsurance program management	The system manage complex reinsurance programs with multiple levels of insuring insuring between Fac, quota share, excess of loss, CAT XOL, whole account QS, and common account	●
Party management	Party management capability for insurers, reinsurers, brokers, Lloyds syndicates, pools, etc.	●
	The system can contain information for each party required for Schedule F and for Solvency II reporting	●
Multi-company support	Can create records of contracts where multiple cedants participate on the same contract	●
	Can manage inter-company accounting	●
Multi-currency support	Can manage treaties and layers with multiple currencies	●
Policy transactions	Can automatically attach policy transactions from various policy sources based on user-definable attachment criteria	●
Commission calculations	Can calculate/record ceding commissions	●
	Can calculate/record brokerage commissions	●
	Can calculate/record profit contingent commissions	●
Claims management	Can support real time cession calculation of paid and/or of reserves	●
	Can differentiate between loss and loss adjustment expense payments	●
	Can support claims coding including event codes, market cat codes, etc.	●
	Can provide large loss overviews/catastrophe loss tracking	●
	Can aggregate claims from different policies and sources for an event or occurrence	●
	Can automatically calculate recoverables for proportional treaties	●
	Can automatically calculate recoverables for non-proportional treaties	●

Category	Function	Availability
Attachment criteria	The system can create granular rules to determine whether any given policy or claim is recoverable or excluded (e.g., location, peril)	●
Bulk entries	Can support bulk entries at the contract level for adjustments, overrides, etc.	●
Reinsurance billing	Can support reinsurance billing bordereau	●
	Can support reinsurance billing using loss advice	●
		●
Accounts receivable/payable	Can maintain detailed accounts	●
Sub-Ledger	The systems sub-ledger can automatically calculate entries to the insurer's general ledger	●
Reporting and modeling	For Schedule F, the system can provide a mirror image of all pages	●
	Can model different loss/recoverable scenarios for individual treaties	●
	Can model different loss/recoverable scenarios for an insurer's total reinsurance program	●
Commutations	Can support commutations at the contract level	●
	Can support commutations at the reinsurer level	●
	Can support commutations at the claim level	●
Messaging	Can support LORS Messaging (London)	●
	Can support ACORD messaging	●
Portfolio Transfers	Can portfolio transfers	●
Other	Can make automated requests to reinsurers for facultative coverage	●
	The system can model the ceding insurer's entire reinsurance program	●
	Can automatically attach specific primary policies to specific treaties	●
	The system can automatically import claims data from the relevant claims systems	●
	Can support assumed reinsurance contracts and transactions	●
	Can support retrocession contracts and transactions	●
	supported ceded reinsurance life and health insurers	●

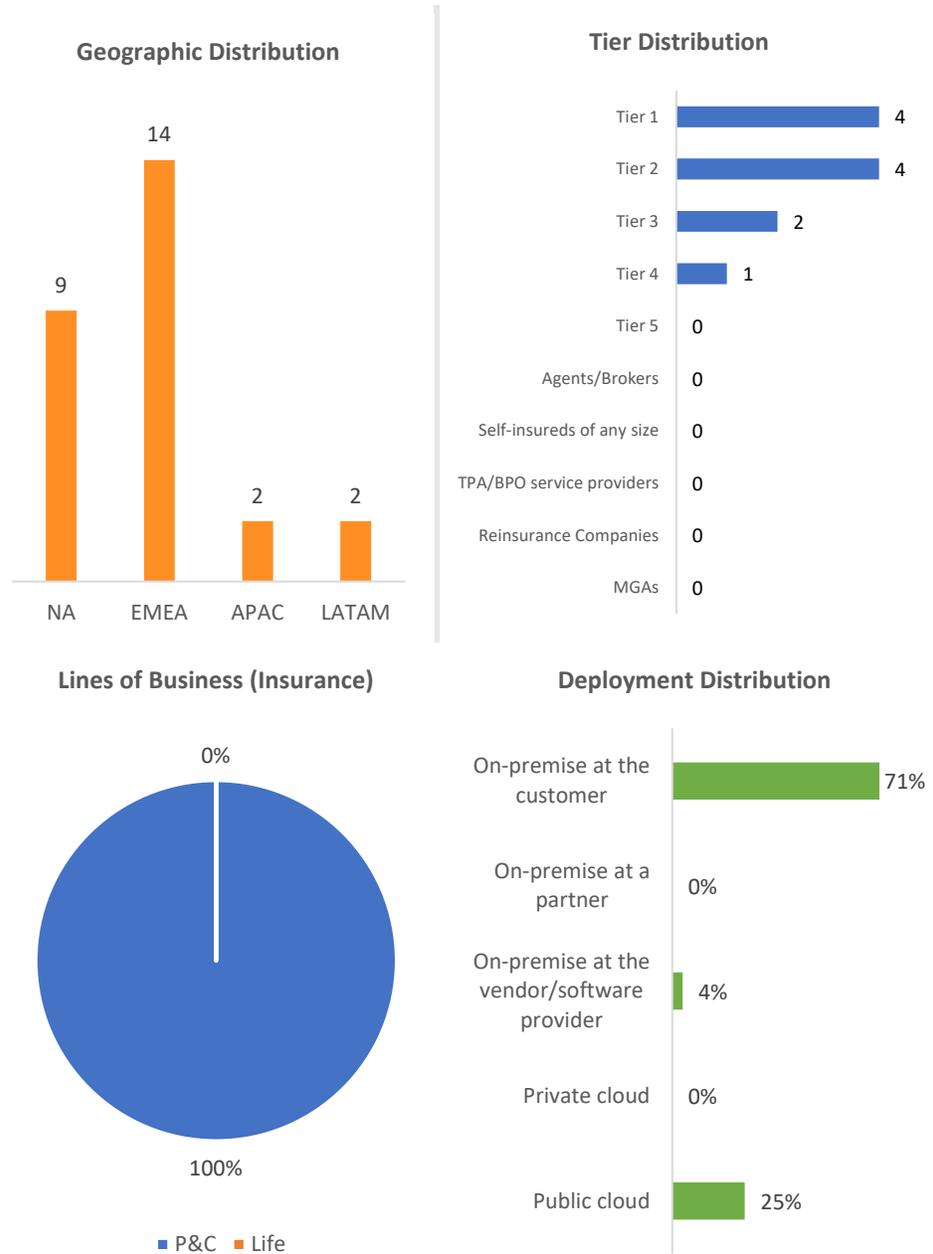
Category	Function	Availability
<ul style="list-style-type: none"> ● = Available out of the box ● = Configurable using simple tools for business user ● = Configurable using simple tools for IT user 	<ul style="list-style-type: none"> ● = Configurable through a scripting language/coding ● = Available with integration to a third party solution ● = Available with integration to a separate module provided by this vendor 	<ul style="list-style-type: none"> ● = Under development / on roadmap ● = Could develop, would be considered customization ● = Not available / not applicable

Source: Vendor RFI

Customer Base

On a global basis, this product has a total of 20 customers in production, and the vendor sold 7 new deals in the last two years.

Figure 1: Client Base by Geography, Tier Size, Line of Business and Deployment Option



Source: Vendor RFI

Table 13: Implementations by Country

Region	Countries
North America	United States
Europe	Germany, Luxembourg, Netherlands, Poland, United Kingdom
Middle East	Israel
Africa	South Africa
Asia-Pacific	-
Central America	Mexico
South America	Brazil
Caribbean	-

Source: Vendor RFI

Technology

Table 14: Technology Options

Technology Options	Responses
Code Base	C#: 3%; C++: 15%; Java: 80%; JavaScript: 2%
Integration Methods	Web services; XML, not through web services; HTTP; RESTful HTTP-style services; JSON format; Custom APIs; Flat files
API Details	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> The API is documented <input checked="" type="checkbox"/> External systems can trigger an event in the system which can be responded to by a workflow or business rules system <input type="checkbox"/> API management supports local or global standards such as ACORD application creation and rendering <input checked="" type="checkbox"/> API sample codes are available to clients <input type="checkbox"/> API developer portal is available for support and descriptions <input type="checkbox"/> API testing portal and the ability to use scripts on website is available <input checked="" type="checkbox"/> The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs

Technology Options	Responses
	✓ API version management is available
	✓ Access to the APIs is managed and use of APIs tracked by developers
	✓ Training in extending the system is offered
	☐
<u>Legend:</u> ✓ = Available; ☐ = Not available	
Source: Vendor RFI	

Table 15: SaaS Capabilities

Elements	Availability
Support a multi-tenant architecture	✗
Type of effort required to update the solution	Evergreen – client chooses when to upgrade
Cadence of upgrades for multi-tenant deployments	n/a
Deployment approach support elasticity	Yes, automatically
Current APIs-related strategy	In-house expertise and experience to build with confidence
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✓
Proportion of the system architected as microservices	Under 25%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✓
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

Table 16: Change Tooling and Upgrades

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	✓
Table Maintenance, List of Values, etc.	✓
Interface Definition	□
Product Definition	✓
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	■
Workflow Definition	✓

Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊕ = Configurable via scripting; ● = Coding required; ✗ = Not available

Source: Vendor RFI

Table 17: Public Cloud Options

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✓	✓	☐	☐
Amazon AWS	✓	☐	☐	☐
Google Cloud Platform (GCP)	✗	✓	✗	✗
Alibaba Cloud	✗	✗	✗	✗
IBM Cloud / Bluemix	✗	✗	✗	✗
Oracle Cloud	✗	✗	✗	✗
Salesforce Cloud, Force.com, AppExchange	✗	✗	✗	✗
Other	✗	✗	✗	✗

Legend: ✓ = In production; ☐ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

Partnerships

Table 18: Implementation and Support

Type of Partnership	Partner Vendor
System Integrators	Capgemini, Qterior, PwC, Accenture, Atos, NTT Data (Everis), Deloitte, BearingPoint, Tech Mahindra, and other local SIs
Fintech Partners	Sapiens PartnerConnect offers a vast ecosystem and marketplace of digital partners that are preintegrated, precertified, and preselected to bring real value. They have over 40 partners that cover a full range of topics. For a current list of third party applications, visit their website at https://sapiens.com/partners/

Source: Vendor RFI

Implementation, Support, and Pricing

Table 19: Implementation, Support, and Pricing

Typical Implementation Team Size	11 to 15
Resource Breakdown	Vendor: 60%; Insurer: 40%; Third party: 0%
Average Time to Implementation	<u>Initial Implementation</u> : 7 to 12 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 4 to 6 months
Pricing Models	Term license, Enterprise license, Subscription-based license, Perpetual license, Another pricing model that is not listed
Source: Vendor RFI	

SAPIENS: SAPIENS REINSURANCEPRO

Company and Product Snapshot

Table 20: Company Snapshot

Year Founded	1982
Headquarters	Holon, Israel
Number of Employees	5,000
Revenues (USD)	\$464 million Financial statements can be found at https://www.sapiens.com/investor-relations/sec-filings/
Financial Structure	Public company NASDAQ: SPNS
VendorMatch Link	https://www.celent.com/vendormatch/discover/solutions/182406316

Source: Vendor RFI

Table 21: Product Snapshot

Name	Sapiens ReinsurancePro
Year Originally Released	1982
Current Release and Date of Release	8.0.14/2023
Revenue Derived from the Product	Financial statements can be found at https://www.sapiens.com/investor-relations/sec-filings/
R&D Expense	Sapiens typically invests 14% of its revenue in R&D
Notable Clients	Travelers, Nationwide, RLI, The Doctors Company

Source: Vendor RFI

Functionality

Table 22: Functionality

Category	Function	Availability
Contracts management	Proportional treaties quota share	●
	Proportional treaties surplus share	●

Category	Function	Availability
	Proportional FAC	●
	XOL treaties – per risk	●
	XOL treaties – per occurrence	●
	XOL treaties – per event	●
	XOL FAC	●
	Facultative obligatory treaty	●
Reinsurance program management	The system can manage complex reinsurance programs with multiple levels of inuring between Fac, quota share, excess of loss, CAT XOL, whole account QS, and common account	●
Party management	Party management capability for insurers, reinsurers, brokers, Lloyds syndicates, pools, etc.	●
	The system can contain information for each party required for Schedule F and for Solvency II reporting	●
Multi-company support	Can create records of contracts where multiple cedants participate on the same contract	●
	Can manage inter-company accounting	●
Multi-currency support	Can manage treaties and layers with multiple currencies	●
Policy transactions	Can automatically attach policy transactions from various policy sources based on user-definable attachment criteria	●
Commission calculations	Can calculate/record ceding commissions	●
	Can calculate/record brokerage commissions	●
	Can calculate/record profit contingent commissions	●
Claims management	Can support real time cession calculation of paid and/or of reserves	●
	Can differentiate between loss and loss adjustment expense payments	●
	Can support claims coding including event codes, market cat codes, etc.	●
	Can provide large loss overviews/catastrophe loss tracking	●
	Can aggregate claims from different policies and sources for an event or occurrence	●
	Can automatically calculate recoverables for proportional treaties	●
	Can automatically calculate recoverables for non-proportional treaties	●

Category	Function	Availability
Attachment criteria	The system can create granular rules to determine whether any given policy or claim is recoverable or excluded (e.g., due to location, peril)	●
Bulk entries	Can support bulk entries at the contract level for adjustments, overrides, etc.	●
Reinsurance billing	Can support reinsurance billing using premium/claim bordereau	●
	Can support reinsurance billing using loss advice	●
	Can support reinsurance billing using statement of account	●
Accounts receivable/payable	Can maintain detailed accounts receivable and accounts payable records	●
Sub-Ledger	The system's sub-ledger can automatically calculate entries to the insurer's general ledger	●
Reporting and modeling	For Schedule F, the system can provide a mirror image of all pages	●
	Can model different loss/recoverable scenarios for individual treaties	●
	Can model different loss/recoverable scenarios for an insurer's total reinsurance program	●
Commutations	Can support commutations at the contract level	●
	Can support commutations at the reinsurer level	●
	Can support commutations at the claim level	●
Messaging	Can support LORS Messaging (London)	●
	Can support ACORD messaging	●
Portfolio Transfers	Can support portfolio transfers	●
Other	Can make automated requests to reinsurers for facultative coverage	●
	The system can model the ceding insurer's entire reinsurance program	●
	Can automatically attach specific primary policies to specific treaties	●
	The system can automatically import claims data from the relevant claims systems	●
	Can support assumed reinsurance contracts and transactions	●
	Can support retrocession contracts and transactions	●
	Can comprehensively support ceded reinsurance from life and health insurers	●

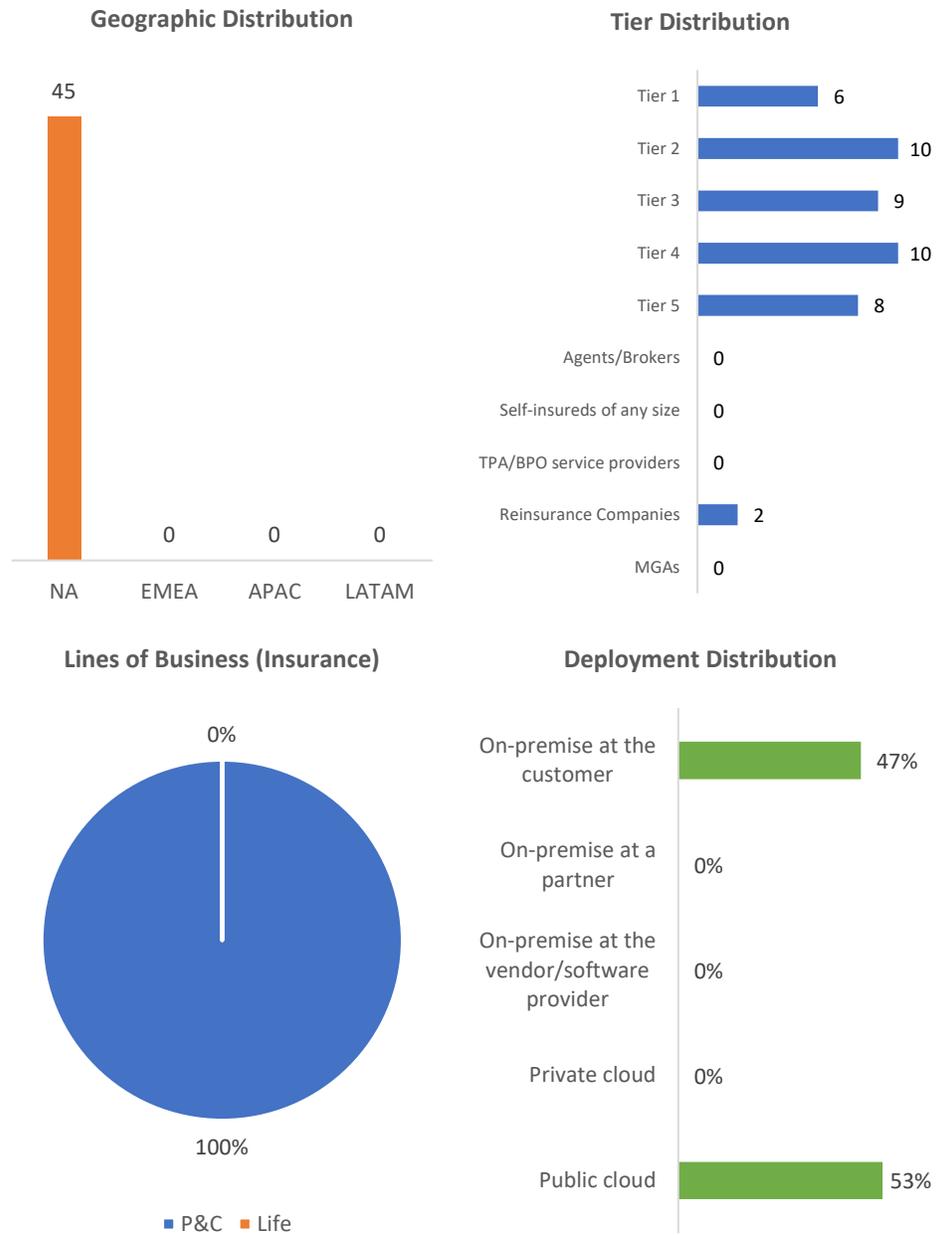
Category	Function	Availability
● = Available out of the box	● = Configurable through a scripting language/coding	● = Under development / on roadmap
● = Configurable using simple tools for business user	● = Available with integration to a third party solution	● = Could develop, would be considered customization
● = Configurable using simple tools for IT user	● = Available with integration to a separate module provided by this vendor	● = Not available / not applicable

Source: Vendor RFI

Customer Base

On a global basis, this product has a total of 45 customers in production, and the vendor sold 10 new deals in the last two years.

Figure 2: Client Base by Geography, Tier Size, Line of Business, and Deployment Option



Source: Vendor RFI

Table 23: Implementations by Country

Region	Countries
North America	United States
Europe	-
Middle East	-
Africa	-
Asia-Pacific	-
Central America	-
South America	-
Caribbean	-

Source: Vendor RFI

Technology

Table 24: Technology Options

Technology Options	Responses
Code Base	Java: 90%; JavaScript: 10%
Integration Methods	Web services; XML, not through web services; HTTP; RESTful HTTP-style services; JSON format; Custom APIs; Flat files
API Details	<ul style="list-style-type: none"> ✓ The API is documented ✓ External systems can trigger an event in the system which can be responded to by a workflow or business rules system ✓ API management supports local or global standards such as ACORD application creation and rendering ✓ API sample codes are available to clients □ API developer portal is available for support and descriptions □ API testing portal and the ability to use scripts on website is available ✓ The system allows API publishing in SOAP, REST, JSON, and XML style services as APIs

Technology Options	Responses
	<input type="checkbox"/> API version management is available
	<input checked="" type="checkbox"/> Access to the APIs is managed and use of APIs tracked by developers
	<input checked="" type="checkbox"/> Training in extending the system is offered
Legend: ✓ = Available; □ = Not available	
Source: Vendor RFI	

Table 25: SaaS Capabilities

Elements	Availability
Support a multi-tenant architecture	✗
Type of effort required to update the solution	Automated scripts – fully automated
Cadence of upgrades for multi-tenant deployments	N/A
Deployment approach support elasticity	Yes, within less than a day
Current APIs-related strategy	Currently migrating to an API environment
Ability of the deployment model to leverage a serverless approach	✗
Ability to enable independent services (microservices)	✗
Proportion of the system architected as microservices	Under 25%
Support automation of development and deployment processes (DevOps)	✓
Ability to run and deploy under containers to improve the application deployment	✗
Need for containerization to run in a cloud	✗
Ability of the system's functions and capabilities to be distributed among a private cloud and a public cloud	✓

Legend: ✓ = Yes ✗ = No

Source: Vendor RFI

Table 26: Change Tooling and Upgrades

Types of Changes	Availability
Business Rule Definition	✓
Data Definition	✓
Table Maintenance, List of Values, etc.	✓
Interface Definition	□
Product Definition	✓
Role-Based Security, Access Control, and Authorizations	✓
Screen Definition	✗
Workflow Definition	✗

Legend: ✓ = Configurable via tools for business users; □ = Configurable via tools for IT users; ■ = Configurable via the vendor; ⊖ = Configurable via scripting; ● = Coding required; ✗ = Not available

Source: Vendor RFI

Table 27: Public Cloud Options

Providers	NA	EMEA	APAC	LATAM
Microsoft Azure	✓	✗	✗	✗
Amazon AWS	✗	✗	✗	✗
Google Cloud Platform (GCP)	✗	✗	✗	✗
Alibaba Cloud	✗	✗	✗	✗
IBM Cloud / Bluemix	✗	✗	✗	✗
Oracle Cloud	✗	✗	✗	✗
Salesforce Cloud, Force.com, AppExchange	✗	✗	✗	✗
Other	✗	✗	✗	✗

Legend: ✓ = In production; □ = Supported but not in production; ✗ = Not supported

Source: Vendor RFI

Partnerships

Table 28: Implementation and Support

Type of Partnership	Partner Vendor
System Integrators	None noted
Fintech Partners	<p>Sapiens PartnerConnect offers a vast ecosystem and marketplace of digital partners that are preintegrated, precertified, and preselected to bring real value.</p> <p>They have over 40 partners that cover a full range of topics. For a current list of third party applications, visit their website at https://sapiens.com/partners/</p>

Source: Vendor RFI

Implementation, Support, and Pricing

Table 29: Implementation, Support, and Pricing

Typical Implementation Team Size	6 to 10
Resource Breakdown	Vendor: 50%; Insurer: 50%; Third party: 0%
Average Time to Implementation	<u>Initial Implementation</u> : 7 to 12 months <u>2nd and subsequent line of business</u> : 1 to 3 months <u>2nd and subsequent states/jurisdictions</u> : 1 to 3 months
Pricing Models	Term license, Subscription-based license, Perpetual license, Enterprise license
Source: Vendor RFI	

LAST THOUGHTS

Ceded reinsurance administration systems have much to offer, particularly for carriers who are still using manual processes and spreadsheets to manage their contracts. Increased productivity, reduced claims leakage, and increased recoverables are but a few of the benefits carriers experience.

The options for insurers in the ceded reinsurance market have expanded, bringing increased complexity along with them. Although integrated administration suite products have enhanced their ceded reinsurance features, some insurance providers may prefer using independent ceded reinsurance systems due to specific business reasons.

For Insurers

No ceded reinsurance solution is ideal for every insurance provider. A variety of suitable options are available for insurers with diverse requirements. When searching for a new ceded reinsurance system, an insurer should start by examining its own unique characteristics. Factors such as complexity of its reinsurance program, proportion of total written premium that is ceded, exposure to catastrophes or other large loss events, lines of business, geographical location, employee skill sets, business goals, and capital strength, as well as the organization's risk tolerance, will affect the list of potential vendors.

Some vendors cater to insurance companies with large IT teams proficient in the latest platforms and tools. In contrast, other vendors are more suitable for insurers with smaller IT teams and limited resources.

We recommend that insurers looking for a ceded reinsurance solution narrow their choices by focusing on four areas:

- Understand the art of the possible—what can be done with advanced tools. Consider what functionality is needed and available out of the box for the types of contracts desired. Check to see what is actually in production.
- Technology—both the overall architecture and the configuration tools and environment. Perform proof-of-concept exercises with short-listed vendors. This is a chance for providers to show what they can do.
- The vendor's stability, knowledge, and investment in the solution. Consider the partnership dimension carefully. Key functional gaps are quickly closed by leading vendors.
- Implementation and support capabilities and experience. The relationship between an insurer and its ceded reinsurance vendor likely will stretch for 10 or more years.

For Vendors

As a collective, vendors persistently allocate substantial resources toward the development and enhancement of ceded reinsurance solutions. These solutions are progressively offering enhanced features, refining configuration tools, and embracing greater connectivity through the adoption of REST APIs. While these trends are decidedly advantageous for insurers, they simultaneously present formidable challenges for vendors in the increasingly competitive landscape.

In this rapidly evolving environment, vendors must consistently strive to innovate and distinguish themselves from their competitors. The continuous enhancement of ceded reinsurance solution features and functionalities is vital to maintaining relevance and appeal in the eyes of insurers. By prioritizing development of cutting-edge technologies, user-friendly interfaces, and efficient configuration tools, vendors can ensure they remain at the forefront of the industry.

Additionally, the growing importance of seamless connectivity necessitates that vendors adapt their solutions to support and integrate with various policy administration systems. By embracing modern industry standards, such as REST APIs, vendors can enable insurance providers to easily integrate their solutions into existing workflows and systems, thereby improving overall efficiency and operational flexibility.

While the ongoing advancements in ceded reinsurance solutions are undeniably beneficial for insurers, vendors must face the increasingly daunting competitive landscape head-on. To achieve long-term success, they must continuously invest in the development and enhancement of their offerings, ensuring they remain in step with the latest industry trends and insurer demands. By doing so, vendors can not only survive but also thrive in the dynamic insurance ceded reinsurance market.

Celent recommends vendors differentiate themselves by:

- Continuing to expand functionality—especially in those areas that leverage the use of data and AI.
- Continuing to build out configuration environments to put change controls in the hands of the insurers. Configuration tools that can be used by business analysts continue to get high scores from insurers assessing these solutions.
- Making implementation faster and less expensive.
- Investing in embedding cloud-native capabilities into the product.

LEVERAGING CELENT'S EXPERTISE

If you found this report valuable, you might consider engaging with Celent for custom analysis and research. Our collective experience and the knowledge we gained while working on this report can help you streamline the creation, refinement, or execution of your strategies.

Support for Financial Institutions

Typical projects we support related to policy administration systems include:

Vendor short listing and selection. We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.

Business practice evaluations. We spend time evaluating your business processes, particularly in policy administration, rating, and claims. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.

IT and business strategy creation. We collect perspectives from your executive team, your front-line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

Support for Vendors

We provide services that help you refine your product and service offerings.

Examples include:

Product and service strategy evaluation. We help you assess your market position in terms of functionality, technology, and services. Our strategy workshops will help you target the right customers and map your offerings to their needs.

Market messaging and collateral review. Based on our extensive experience with your potential clients, we assess your marketing and sales materials—including your website and any collateral.

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February 2020

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