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NORTH AMERICAN POLICY ADMINISTRATION SYSTEMS 2018

PERSONAL, COMMERCIAL, AND SPECIALTY ABCD VENDOR
VIEW

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This is an authorized excerpt from a Celent report profiling policy administration systems. Although the reprint was prepared for Guidewire Software, the analysis is unchanged from the original. For more information on the full report, please contact info@celent.com.

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EXECUTIVE SUMMARY

This report provides an overview of the policy administration systems available in North America for property & casualty insurance carriers. The report profiles 33 policy administration solutions, providing an overview of the functionality, the customer base, lines of business supported, the technology, implementation, pricing, and support. Some solutions qualified for profiles that include customer references and a Celent opinion of the solution. Those solutions are also ranked in the ABCD Vendor View. Some solutions did not qualify to be ranked in the ABCD Vendor View, and those profiles do not include a customer reference or a Celent opinion.

The following vendors are included in this report: Beyontec Solutions, CodeObjects, Duck Creek Technologies, DXC Technology, Ebix, EIS Group, Fadata, Guidewire Software, Insurance Information Technologies, Insurance Systems, Insuresoft, Insurity, Intuitive Web Solutions (BriteCore), JW Software, Majesco, NIIT Insurance Technologies, Oceanwide Canada, OneShield Software, Patriot Technology Solutions, Policy Administration Solutions, SAP, Sapiens, Sequel Business Solutions, Solartis, SpeedBuilder Systems, SSP, StoneRiver, Tata Consultancy Services, and Tropics. This report also names the winners of the XCelent Awards:

- XCelent Technology for the leading Advanced Technology score:
Guidewire PolicyCenter
- XCelent Customer Base for the leading Customer Base score:
Guidewire PolicyCenter

INTRODUCTION

KEY RESEARCH QUESTIONS

- 1** *What is a property & casualty/general/specialty policy administration system?*
- 2** *Who are the vendors in the North American marketplace by line of business?*
- 3** *Which systems win Celent's 2018 Property & Casualty/General/Specialty PAS ABCD Awards?*

Significant innovation is occurring in product management and underwriting in the North American region. Carriers are looking to grow, differentiate themselves, navigate the regulatory environment, and do all of this efficiently. At the same time they are faced with an explosion of new technologies such as the Internet of Things, drones, wearables, and big data to name only a few. As millennials become a larger proportion of buyers, customer attitudes and expectations are changing. Mobile and social are driving escalating expectations for customer service.

Carriers are focusing their investments on initiatives to drive growth and efficiency. Underwriting is central to these goals as carriers drive to have the right products, priced well and processed efficiently with consistent superb customer service.

Significant change has been happening in the processes of product development. Certainly many carriers still use legacy practices. They provide standard products with tiered rating. They use internal historical data combined with industry loss costs. There is a heavy use of ISO for commercial lines, and many carriers require IT coding to make product changes.

More recently some carriers are focusing on expanding their product set with more product innovation. Carriers are utilizing more complex rating schemes and using a wide variety of data elements in their rating algorithms. In commercial lines, carriers are generally moving to move standardized base products using ISO, and focusing their product innovation on endorsements tailored to specific industries. This is also resulting in an increased use of ISO using electronic processes, either ISO's new product, Electronic Rating Service, or through electronic services provided by their policy administration vendor. Being able to take advantage of these trends requires the ability to rapidly make product changes, ingest third party data easily, and easily change business rules. Highly configurable product development environments are a requirement to deliver rapidly changing products.

The most innovative carriers are focusing their product management efforts on unique products such as behavior-based products, or products with services embedded. Telematics is such a product. It bases the pricing of the product on the driving behavior of the policyholder and often includes additional services such as driver tracking, fleet monitoring or gamification platforms. Multivariate rating algorithms are being used, and product managers are using predictive analytics as a key tool in providing pricing guidance for books of business. Some carriers have dynamic business rules, or are using machine learning, to monitor the underwriters pricing behavior on a book of business and dynamically providing pricing guidance. Some use predictive analytics to assess the loss ratio going forward and adjust pricing real time. These kinds of advancements change the role of the product manager. Product managers have to add business rules management

and analytics to their portfolio of skills. In addition to providing oversight on individual policies or transactions, they now need to be experts in formulating and monitoring rules. Managing when and how often underwriters override rules, assessing the frequency and impact of the use of a rule, and determining when to retire, modify or enact a new rule are all critical tasks in the new practice of rules governance.

Just as product management is changing, so the practice of underwriting is also changing. The typical underwriting practice is for an individual underwriter to gather a combination of customer-provided data and third party data such as financial information through an application and third party data calls. Physical inspections or photos are required on most properties over a certain value or in a particular fire zone. Data is generally entered manually by an underwriter or is uploaded from an agency management system into the policy administration system. The underwriter uses a combination of company guidelines and their own underwriting judgment to assess the risk and determine the appropriate terms, conditions and price. Fully automated underwriting is used only on the most standard lines such as personal auto. Cross-sell occurs when the underwriter remembers to offer additional products. Most correspondence is handled manually by the underwriter and documents are often stored in a document management system that is separate from the policy administration system, requiring an underwriter to search a separate system when looking for documents. Workflow is often depicted as screen flow in the policy administration system, or is handled in a third party system. Many companies still have challenges handling out of sequence endorsements. Most companies have some kind of automated renewal process for business that meets certain criteria.

The typical process above can be quite costly as it requires substantial human intervention, and is prone to errors. Carriers are moving toward a more automated process, which can streamline cost and improve decision making. Carriers are providing pre-fill — pulling in third party data to prefill an application thereby reducing the data entry needs of the agent and/or underwriter. Fully automated underwriting is extending to more complex lines: Homeowners, BOP, and Workers Comp. Business rules and scoring are being used to provide risk assessment and pricing advice on more complex business. Carriers are using business rules to automate the cross-sell of standard products such as cross-selling commercial auto on a BOP policy, or an umbrella on a Homeowners policy. Easily changed business rules are a pre-requisite for offering these capabilities. As carriers fully automate the underwriting of a line of business, they have to be able to rapidly and easily change a business rule as the business environment or regulation changes.

The most innovative carriers are heavily using analytics in a variety of ways. Analytics have the most impact when used to assess risk quality and provide pricing guidance. Carriers have reported loss ratio improvements of 4-10 points when implementing this type of initiative. Analytics are also being used to minimize inspections or the ordering of third party data. Why routinely order a MVR? Carriers are predicting which MVRs are most likely to have violations in them and only ordering those thereby reducing their costs.

In commercial lines, carriers use analytics to determine which accounts should get a physical audit versus a paper audit. Uber-like inspection services are being used, allowing carriers to significantly increase the speed of getting a photograph. In addition, carriers are experimenting with drones for property inspections. New sources of data are being used, including social media scores (using social media presence to assess risk). Other carriers use social media to assess a prospect's risk profile and are driving cross-sell initiatives based on that risk profile. Sophisticated product recommendation tools are being created and automated cross-selling of unique products is occurring. Carriers must have the ability to create business rules and to have event and data driven workflow in order to automate these tasks. The automated delivery of customer communications is a

key requirement, and some carriers are now using tailored video as a key component of their customer communications, using XML streams from the policy admin system to dynamically create videos to deliver information such as a welcome letter.

To support these types of expansions, carriers have to have more capabilities in the policy administration system. Business users expect a variety of improved capabilities. They want to improve internal workflow to support business process changes to improve efficiencies and reduce expenses. They are looking to improve consistency in handling procedures, both to improve customer service and to avoid compliance issues. Carriers need to improve flexibility in managing rules to respond quickly to regulatory changes. As more carriers use predictive analytics, they want the ability to operationalize predictive analytics through rules and workflow — especially to better assess risk and optimize pricing. They expect increased data accessibility as they add new data elements and look for new, unique insights in their data. In addition, they want a modern, intuitive user interface for their employees and agents.

The IT organization wants everything the business wants as their goal is to enable the business to perform well. In addition, IT is looking for a platform to enable an agile IT department in order to facilitate great IT/business alignment. This means a highly configurable system with a variety of strong granular tools including tools to manage the testing and the release cycle. They want standards-based commodity technology that will allow variable staffing strategies. One of the biggest drivers of the system selection decision is the functionality. IT expects a minimal functionality gap with an out of the box template for every line, in order to speed up the implementation process and reduce customization. Inherent in all these demands is reduced technology risk — meaning a modern architecture that simplifies the carrier's footprint and a track record of success in similar lines of business with similar size clients.

Policy administration vendors have responded by enhancing functionality. Significant levels of research and development have been occurring in the vendor community. Vendors are investing as much as 50% of their revenue in product enhancements. Most have upgraded their system with a modern look, feel and navigation and a functionally rich UI. Configuration tools continue to become more user-friendly — and tools for the IT organization are more likely to be included. More and more vendors have deep partnerships with add-on technologies such as document creation, document management, analytics and reporting in order to simplify the application architecture for a carrier. Mobile apps are common, and most vendors can offer a hosted solution for carriers that want to outsource infrastructure management or obtain other managed services.

A TRANSITION TO A NEW ARCHITECTURE BEGINS

In the past year or so, there has been an explosion of interest in a new architecture for insurance systems (and for many other types of systems as well). This new architecture is characterized by microservices and APIs which are typically cloud-based. (For a more detailed discussion of microservices and APIs, see the Celent report, *Honey, I Shrank the Services: Microservices in Insurance*, December 2017.)

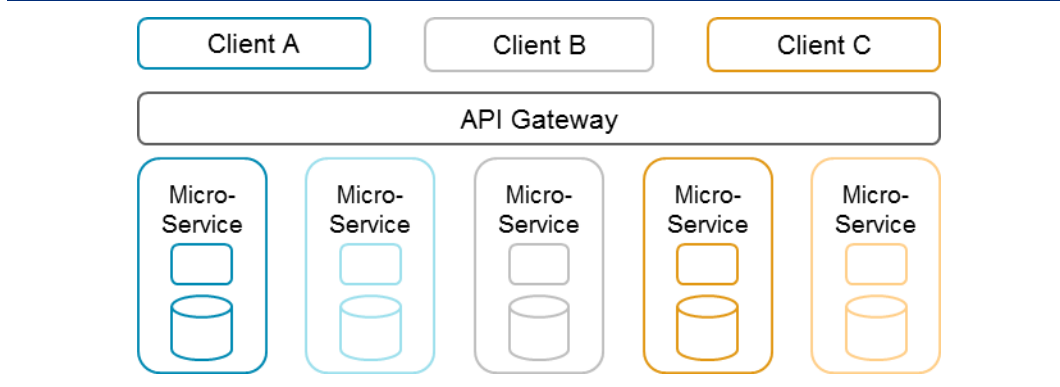
For the purpose of this discussion:

- An application programming interface (API) is a method of communicating with a set of microservices (or other services). An API Gateway a software tool that publishes the API and allows a set of internal or external code to interact with the API.
- A microservice is a self-contained, deployable component that contributes an API to a wider architecture. A microservice's actions are typically limited in scope (for example looking up GPS coordinates, as opposed to looking up GPS coordinates

and finding construction characteristics of a building at that location).

Figure 1 shows how programs or physical servers interact with an API Gateway and a set of microservices.

Figure 1: Simplified Diagram for Microservices and an API Gateway

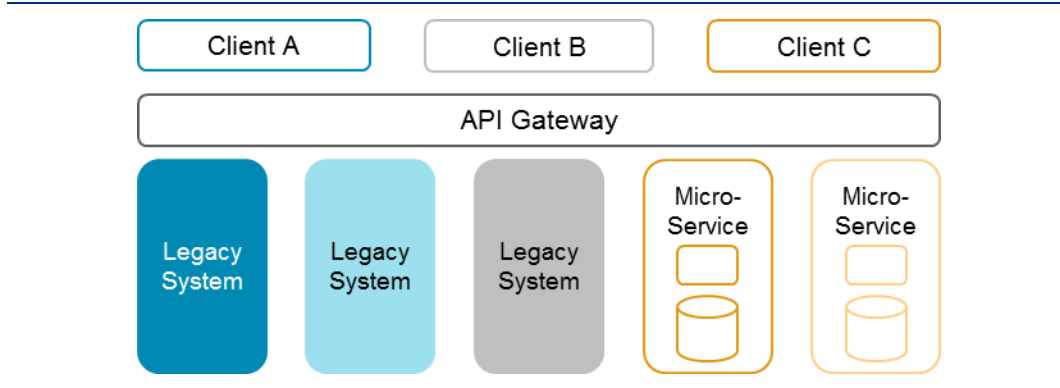


Source: Celent Report, *Honey, I Shrank the Services: Microservices in Insurance*

In general, APIs and microservices may be built, maintained, and modified more quickly and more efficiently than other types of functionality and integration methods in other types of architectures. They are also more open in the sense that other internal or external systems can access functionality or data more easily.

Over the next several years, microservices and APIs will likely coexist with legacy policy administration and other core systems, as shown in Figure 2.

Figure 2: Near-Term Legacy Modernization Mixed Architecture



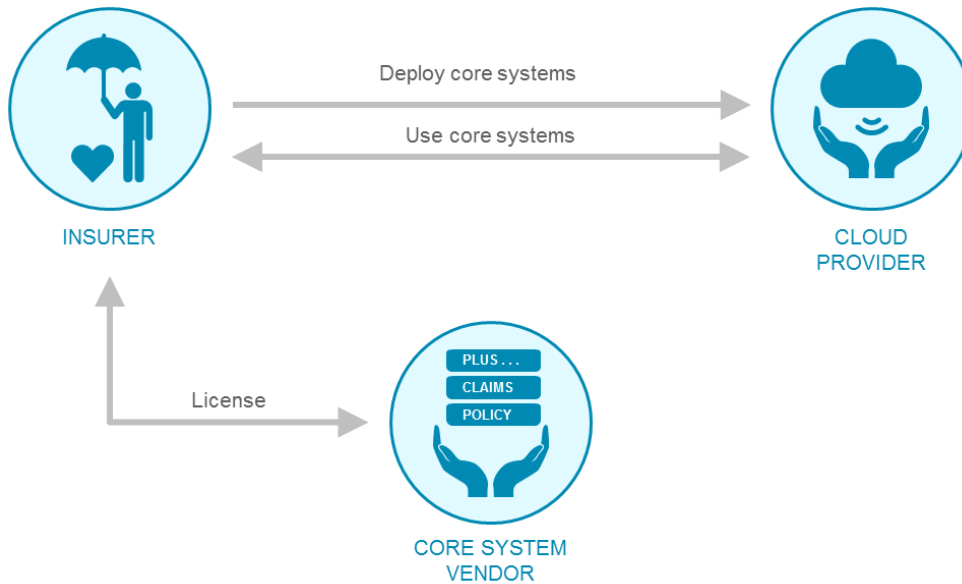
Source: Celent Report, *Honey, I Shrank the Services: Microservices in Insurance*

The third element of the new architecture is that it is cloud-based.

- Cloud-based in this context refers to a policy administration or other core system deployed in a server located off-premise from an insurer, for which a cloud provider supplies Infrastructure as a Service, or IaaS (including computing, storage, and networking resources); and Platform as a Service, or PaaS (which could include tools for programming, analytics, and database management).

A cloud-based policy administration system may be licensed by a vendor to an insurer, which in turn deploys it in a cloud (Figure 3).

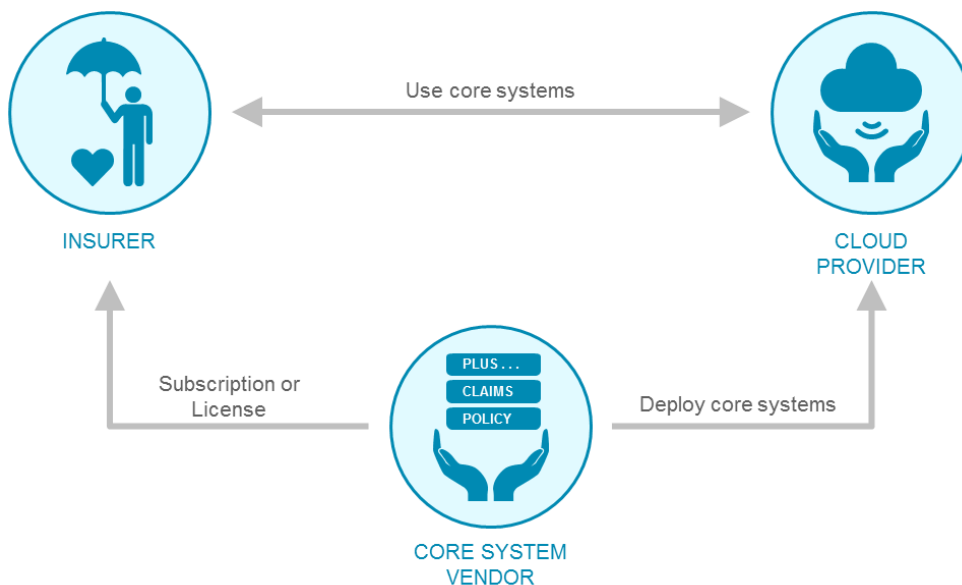
Figure 3: A Cloud-Based Core System Deployed by an Insurer



Source: Celent Report, *Security for Core Insurance Systems in the Cloud*

Or the vendor itself may deploy the policy administration system in the cloud, and give an insurer access to that system either by means of a subscription (Software as a Service, SaaS) or a license (see Figure 4),

Figure 4: A Cloud-Based Core System Deployed by a Vendor



Source: Celent Report, *Security for Core Insurance Systems in the Cloud*

There are several advantages in both types of deployment, including: transforming certain capital expenditures into variable costs, rapid provisioning of computing and storage resources, nearly unlimited scalability, shorter development cycles for both initial implementation and ongoing maintenance, minimizing latency across widely dispersed user locations, and improved business continuity and disaster recovery.

Taken together, microservices, APIs, and cloud-based systems have already begun to, and will continue to, transform the architecture of policy administration and other core systems.

With all these changes in the business and in the vendor community, it is no wonder that we continue to see policy administration replacement as a high priority activity in North America.

POLICY ADMINISTRATION SYSTEMS: DEFINITION AND FUNCTIONALITY

Key Research Question

1

What is a property & casualty/general/specialty lines policy administration system?

The primary system of record for property & casualty/general/specialty insurance business operations, handling all transactions from the front end of individual policyholder management to the back end of billing and premium payments. They also store all product rules and definitions.

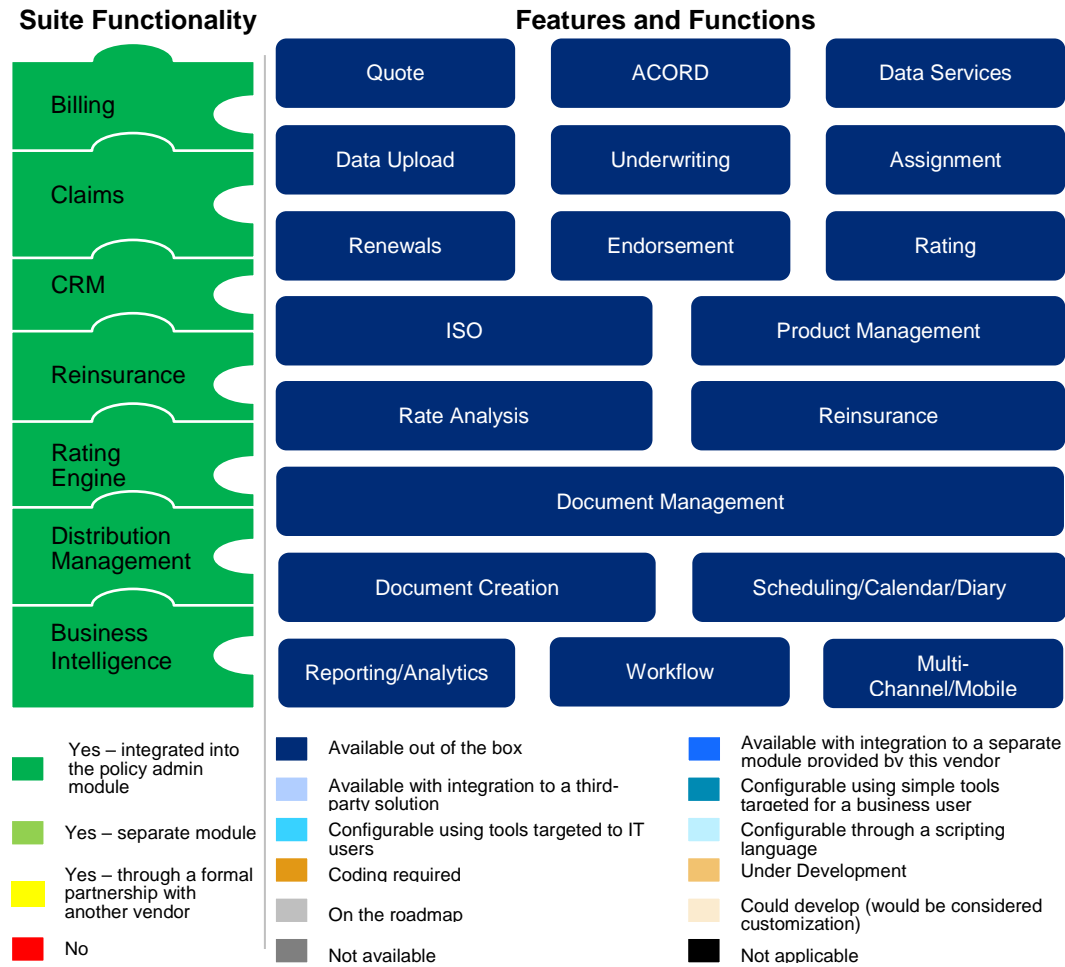
DEFINITION

In one sense, the definition of a policy administration system (PAS) is very simple — it is the system of record for all policies that an insurance company has written. At this most basic level, a PAS is a repository of policy-level data related to objects of insurance, coverages, limits, conditions, exclusions, duration of the policy, endorsements, and so forth. A permanent policy record is created at the time a policy is issued, and it includes the complete history of the policy through renewal, termination, cancellation, and/or reinstatement.

In actual practice, an insurer uses a PAS — either by itself or closely integrated with specific point solutions — to execute a number of core processes, and relies on several types of supporting capabilities, as shown in

Figure 5. All modern core policy systems provide basic functionality for the most standard processes of quoting, issuing, endorsing, and renewing a policy. However, there is significant variation in the way the solutions handle these functions.

Figure 5: Policy Administration System Core Processes



Source: Celent

TRANSACTIONAL SERVICING FEATURES

A variety of features are available to handle the day-to-day transactional activities of quoting, issuance, endorsements, renewals and cancellations.

Scheduling/Calendar/Diary. A wide variety of tools are available to help the underwriter manage their workload. Underwriter desktops typically include an area where new business quotes, policies needing issuance or renewal, endorsements, and other assigned tasks are easily found. User interfaces can vary widely but often include features such as the ability to sort by clicking on columns, to filter columns, and to drag and drop and rearrange columns. All solutions include search, but some include sounds-like search, partial word search, Boolean search, or wildcards. Most systems allow underwriters to create manual diaries, tasks, and notes and to easily see their work in a calendar format. Many are integrated with email, allowing an underwriter to send an email from the desktop. Many include a policy or account summary that contains the most important information about a policy or account and is available at a glance from any location within the policy. Some solutions allow the underwriter to customize their own workspace, choosing which modules they want displayed, selecting a color scheme, or adding links to commonly used third party websites. Other capabilities such as

configurable help text, hover-overs, and wizards can help an underwriter easily navigate through the task.

Quick quote and full quote. Agents and underwriters often want to get a quick indication of risk acceptability and price and to compare the price of different options. Quick quote functionality allows a price to be generated with minimal data entry. The data entry screen contains only those questions needed to calculate a rate or to determine the basic terms and conditions of the policy. Sometimes the questions will include basic risk acceptability questions, but quick quote is not usually intended to handle the full underwriting of the policy. Many solutions include the capability for dynamic questions that expand and change based on the answers to specific questions, allowing the system to prompt the broker or underwriter to get more detailed information based on insured's responses. Multiple versions of the quote can be generated to see the impact of different terms, conditions, and product choices. Some solutions handle the side-by-side quoting by opening separate windows. Some allow different quote versions to be saved. More and more are offering side-by-side quoting in a single window. Once a quote is generated, some solutions allow for multiple side-by-side views of different options. The user can change a deductible in version one, or a limit in version two. Some solutions use drop downs to show the different available options, with the price difference for each option shown next to the label within the drop down itself. Most solutions include the ability to create and display rating worksheets (a detailed listing of how the premium was calculated). Some have the ability to show simplified versions to the brokers, and detailed versions to the underwriters.

ACORD upload. ACORD applications are the most commonly utilized form of application in the industry. The data is commonly contained in the agents' or brokers' agency management systems. Rather than requiring the broker to reenter the data on the application, many systems have the ability to upload an ACORD application and have the data repopulate the appropriate fields, retaining a copy of the ACORD application elsewhere in the system.

Data upload. Specialty and commercial lines policies often include large schedules of drivers, locations, vehicles, or equipment. Many systems allow these schedules to be imported or uploaded from an Excel spreadsheet. Some systems require that the spreadsheet be formatted in a particular order. Some allow mapping of the spreadsheet as the spreadsheet is being uploaded.

Data services. Underwriters rely heavily on third party data or reports from external data services. Most systems have some level of preintegration with the most common data service vendors. Some require the underwriter to manually request the external data. Others use business rules to automatically send the data request and retrieve the data or report. Some can take the data retrieved and populate the specific field; others store the data as a record that the underwriter can review, and the underwriter can then enter the data into the correct field in the policy record.

Automated underwriting. Many solutions have the ability to use business rules to automate the underwriting process. The solutions use business rules to determine if the transaction can proceed without human intervention, or if intervention is required, a task is generated for the underwriter to review and take action. Some solutions can handle basic yes/no questions only. Others can perform very sophisticated underwriting. The capabilities are heavily influenced by the level of sophistication of business rules and workflow capabilities.

Underwriter assignment. While some carriers still assign work manually, more and more carriers are looking for automated support in the underwriting process. Solutions handle underwriter assignment in a variety of ways, for example the ability to assign policies/quotes to a team or individual using a round-robin capability, or the ability to assign to specific individuals based on specific criteria. Some solutions can assign a

transaction very granularly, based on line of business, agent, geography, and workload. Most systems allow multiple underwriters to be assigned to work on a single account handling different policies. Carriers also look for capabilities for manual assignment or reassignment for both bulk transactions or single policies or accounts.

Automated renewals. Most solutions have the ability to handle no-touch automated renewals. If the policy meets the carrier's defined requirements, the information from the original policy carries over to the renewal, and the policy is issued. Some allow business rules to be used to apply an inflation factor automatically, or to make other bulk changes on policies as they renew. Those policies that do not meet the requirements are popped out of the renewal cycle and assigned to an underwriter for intervention. Along with automated renewals, look for automated non-renewals. Some allow a policy to be marked for non-renewal. Some allow business rules to be used to determine whether an underwriter will allow the policy to renew. In the case of an automated non-renewal, the system generally can send out the appropriate documents in the right time frame according to the jurisdictional requirements of the policy.

Endorsements. All systems can handle endorsements. Almost all systems can handle out-of-sequence endorsements as well. When it comes to out-of-sequence, there are a variety of techniques in place. Some alert the underwriter to the fact that the policy change is out of sequence. Each affected endorsement is identified, and the underwriter can select which to back off and which to roll back on. Others handle the back-off and roll-on automatically only highlighting conflicts for an underwriter's intervention. At least one solution can handle multiple policy changes with different dates on a single endorsement. Mid-term broker of record changes can often be handled as a bulk transaction, but some systems require the changes to be done policy by policy. Some allow a lot of flexibility as to when commission changes occur, and some allow the commission to begin accruing to the new broker immediately. Others begin the commission accrual at the time of renewal.

PRODUCT MANAGEMENT CAPABILITIES

In addition to transactional capabilities, a policy administration system is the primary repository for the product rules, rates and forms attachment logic for all products.

Rating. Most but not all solutions include rating engines as a key feature. As vendors are creating more sophisticated configuration tools, rate changes can be done by business analysts rather than developers. The rate tables, rules, and algorithms are externalized from the programming code. There are wide variations in the level of sophistication of the rating engines. As carriers have been moving to more complex rating algorithms, rating engines have expanded their ability to support complex rating algorithms including multivariate rating and by-peril rating. Most allow multiline, multilocation rating on a single quote or policy. Many also allow multistate rating. Look for the ability to use external party information sources (e.g., credit score, loss data, property data, predictive scores etc.) in the rate algorithms during real-time calculation. Other features to look for include the date management capabilities — the ability to manage multiple dates based on the versions of the rate, table, or algorithm changes. Some solutions require the versioning dates be embedded in the code or script. Others provide fields to enter the dates. Some allow different versions or effective dates for renewals versus new business.

Rate analysis. Some solutions include very robust tools for handling the rate analysis function. Testing, modeling, and product analysis tools are included that allow a carrier to do an impact analysis — calculating the overall impact of a rate change or a displacement analysis — identifying the number of policyholders that will be impacted. These types of tools are typically found in those solutions that include a stand-alone rating engine that can be sold separately. Some vendors have business intelligence tools included and are able to set up reports that can provide some level of analysis as well. Many solutions do not include any functionality for handling rate analysis or testing.

ISO Support: Almost all commercial lines carriers rely on ISO for rates, rules, and/or forms. The most significant new option is the ISO Electronic Rating Content (ERC). With ERC, ISO offers their rating content in an electronic format. This service has many features — all of which are intended to streamline the process for carriers, allowing them to take revisions faster. ISO provide all circulars in an electronic format. They provide loss costs, rules, and forms attachment logic in both XML and Excel format. They include a reporting utility that helps carriers identify and understand the differences between the circular revisions and the carrier's current rating structure, including their program deviations. Carriers can subscribe to ISO ERC, but to get full value, their policy administration or rating system needs to be able to absorb the XML stream or Excel files.

There are several ways vendors provide ISO rating support to their clients.

- **Vendor Interpretation.** Some vendors have their own team of people that support ISO content. Employees read the ISO circulars, interpret them, and send the information to the carrier to determine if they wish to adopt the change. If the carrier wishes to adopt the change, the vendor then loads the changes into the policy administration system. The cost for this service is typically loaded on top of the vendor's annual maintenance fee for their solution. Some vendors provide service-level guarantees to assure the vendor does not miss a filing date.
- **ISO ERC Support.** The vendor invests in technical capabilities that allow their policy administration or rating solution to receive the ISO ERC changes from ISO. The vendor creates a utility that receives the changes and transforms the data into the solution's data model. Typically, the solution provides additional tools to allow the carrier to identify what changes were included and modeling tools to understand the impact of those changes. Look for how many major and minor lines have been enabled and how many are actually in production.

Product Development Tools: The product architecture is a key component of a policy administration system. Often when implementing a new system, this is an area that requires significant work on the part of a carrier — redesigning their products to match the architecture inherent in the policy administration system. Many solutions have a product architecture that is depicted as a tree, which allows inheritance across jurisdictions for common features. Some include color-coding that helps a carrier easily identify where a product does not conform to the nationwide version. Some keep their product architecture in an Excel or Excel-like format — which can be easy for the business to maintain, but can sometimes result in additional complexity for carriers with many lines of business across many states. Some solutions include wizards that make it very easy for a business user to make basic parameter driven product updates. Some include a self-documenting product dictionary. The dictionary is the source of complete, reusable insurance product definitions including rates, underwriting rules, calculations, specifications, integration definitions and data for managing forms so all of it can be defined as reusable components that can be rapidly adapted to form new products or enhancements. Some product dictionaries are very business user friendly with natural language definitions.

Reinsurance: One of the newer areas that vendors have begun to invest in is reinsurance capabilities within the policy administration system. Most solutions do not include this functionality. The most robust solutions allow for full program definition. Carriers can identify multiple treaties based on perils, lines of business, geographies, or other dimensions. Treaties can be assembled into programs with specific inurements identified. The solution will create bordereaux reports tracking the exposures, the commissions, and the premiums back to the reinsurer. Some allow an underwriter to manually mark a policy as reinsured with some basic information about any facultative contracts. Some have set up reports that allow for some basic reporting on policies that meet basic treaty requirements.

COMMON FUNCTIONALITY

There are a variety of functions that are not specific to underwriting or product management, but can generally be found in a policy administration system.

Workflow. Some solutions serve more as data capture tools. Workflow is simulated with screen flow. Other solutions have true workflow capabilities — the ability to automatically generate and assign tasks based on event changes in a policy, time lapse, or data changes in a field. Some of the solutions profiled have the capability to visualize the workflow through graphical depictions. Some have a graphic design environment, with automated background code generation. This means graphical depictions are actionable — clicking on a step allows the carrier to modify that step, or steps can be dragged and dropped to rearrange the sequencing. It is not uncommon for a software vendor to use a third party or open source tool to manage the workflow requirements.

Document creation. Most of the solutions include some sort of correspondence or forms library for the most common forms and letters. Many integrate to third party solutions to provide additional capabilities because many of the built in solutions are not robust enough to handle production level policy generation. Look for standard templates out of the box. Many of the solutions will come preloaded with ISO, NCCI, or Bureau forms out of the box. The forms attachment logic is typically included as part of the product definition, and the templates themselves are included in the document creation tools. In addition to policy forms, many systems can automatically generate correspondence using business rules and task generation capabilities. When an event occurs, or the data within a field changes, the solution can automatically create correspondence that can often be delivered using a variety of mechanisms: mail, email, or SMS.

Document management. Some systems contain a document management capability allowing for storage of internally generated documents and external documents such as photos, videos, and other media. Many integrate to external third party solutions to provide more scalability. Look for the level of granularity in indexing forms being created. When a policy file holds hundreds of items, being able to rapidly sort to find the document needed can save time. Look for not just ability to search the metadata about the document, but also ability to search within the document.

Reporting. Reporting capabilities vary widely across solutions. Virtually all solutions integrate to a third party reporting tool. Some include a third party reporting tool out of the box. Some solutions use open source reporting tools, and some have in-house built solutions. Most include some level of prebuilt standard reports that can be subscribed to or scheduled. Standard reports typically deliver operational reports, performance measures, and some level of financial reporting. Look for the number of reports included out of the box. 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 drilldown capabilities.

Mobile/multichannel access. Almost all solutions are browser-based and so are available via a tablet or mobile device for an underwriter in the field. More and more have been optimized for a mobile device using HTML 5 or responsive design. Some solutions come with mobile applications out of the box meant for a potential policyholder to access their policy, pay their bill, or get proof of insurance.

TECHNICAL FUNCTIONALITY

While assessing features and functionality is a critical step in selecting a policy administration system, there are a number of technical considerations to be considered as well.

Configuration tools. A general trend in insurance software is to create tools that allow carriers to do more modifications of the system through configuration tools rather than through code. The most robust tools allow carriers to easily add data elements, create business rules, modify workflows, create forms, create screens, modify the user interface, and even map interfaces, all using configuration tools. Some tools are extremely intuitive with drag-and-drop and point-and-click capabilities. Others require knowledge of a scripting language to make the changes. Many vendors are moving toward a dual development environment with simplified tools and wizards meant for Business Analysts to make general changes and a more robust environment meant for technical staff to utilize.

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 extremely intuitive and use natural language; others require knowledge of scripting. Some have visualization tools that allow a carrier to use a Visio-like tool to build business rules. Some solutions include a searchable and version-controlled rules repository. A few solutions offer tools to help carriers conduct impact analysis of the rules or traceability tools to 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, etc.

Data. Data is more and more important 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 the easy creation of data elements including the ability to mask data, encrypt data, add context-specific help text, and modify the data model. Self-documenting data dictionaries are available. Some solutions come with an ODS out of the box and may even include a data warehouse with the appropriate ETL tools. Most solutions are built on an industry standard model such as ACORD.

Security. Often desired is the ability to easily add a new role and define the permissions for that role as well as the ability to easily add an individual to that role. Permissions may simply mean read/write permissions. Some solutions offer access granularity down to the data within the field level. For example, if party type equals carrier employee, limit access to this claim to only those with permission to see employee data.

Scalability: While we typically think of scalability in terms of the number of policy transactions, or the number of users, an additional area to examine is how the system handles multiple locations or vehicles on a policy. Performance as the system scales is another important consideration.

Integration: Policy administration systems integrate to large numbers of third party systems and external data sources. Most solutions have been designed with a Service-Oriented Architecture and have a variety of ways of handling integration including Web Services, ACORD Standard XML, Other XML, RESTful HTTP style services, JSON format, MQSeries, JMS or similar queue technology, Flat files, Custom API, or other methods of integration. Most systems have some kind of accelerator, or experience integrating to the most common third party data sources and the most common 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 and more vendors are moving to agile or a hybrid methodology as their preferred methodology. Look to see what methodology the vendor uses and how it aligns with your own preferred methodology. Some vendors are very good at helping carriers transition to an agile approach. Look for the artifacts they have

available for gathering requirements documenting the product architecture, and capturing the 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. Be sure to do 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 most of the responding vendors reporting that they have cloud-enabled core systems. When it comes to the term “cloud,” there are many different variations available. Most vendors offer a hosted version of their software. The software is licensed by the carrier and is hosted by the vendor either in their own data center, in a private data center like Rackspace or in a public data center like Amazon or Microsoft. Look for the level of managed services available if you are interested in this option.

SUITE CAPABILITIES

Celent has limited the definition of a PAS to include a set of core processes and key supporting capabilities. However, vendors do not necessarily limit their definitions of a PAS in the same way, and many have attempted to build out some or all of the end-to-end components that an insurer might need. Some insurers are just looking for a best-of-breed PAS to work with other core systems already installed, but other insurers may be looking for a vendor who can offer broad solutions for multiple areas of their insurance operations.

Some of the additional end-to-end components defined here are also listed as core processes of the PAS. This is not a contradiction. A vendor might bundle a component with their PAS (for example, a billing system), but also consider it (and also sell it as) a separate, stand-alone product. Alternatively, a vendor might provide a basic level of functionality in one area, but also have an upgraded, higher cost product or an ISV partnership with a different vendor to provide an advanced solution (e.g., rating).

In order to help insurers with their comparison of different solutions, each profile in this report has a table summarizing whether the vendor in question offers one or more of the following end-to-end components and whether the components are part of the base offering or sold as a stand-alone system.

Billing. A system to create invoices and handle collections from producers and policyholders. It typically handles basic commission processing as well.

Claims management. A system to record and transact all matters relating to a claim from first notice of loss through final settlement.

Reinsurance Management. A system to record any reinsurance contract related to a policy or set of policies, and a claim or set of claims. The solution typically will calculate the bordereaux, manage inurements, calculate claims reimbursements, and manage the financial and reporting interactions with reinsurers and brokers including commissions.

Customer relationship management. Allows the aggregation of data on a customer or at an account-level view and provides utilities that streamline the communication and management of customer data. Typically includes lead management and campaign management in addition to tracking the demographics of the customer.

Rating Engine: A stand-alone rating engine should be capable of handling complex pricing algorithms and should integrate easily with multiple policy administration systems. They typically include more robust rate analysis tools and can usually operate on a headless basis if required.

Distribution management. A system that manages the compliance aspects of agency management including onboarding of agents and tracking the licenses and appointments as well as complex compensation transactions across multiple policy administration solutions including incentive compensation.

Business Intelligence and reporting. Designing, storing, and accessing reports ranging from simple lists to multidimensional calculated variables. In general, reports are used to monitor activities by a user and by all levels of management. Tools generally allow standard reports with scheduling tools and ad hoc reporting.

REPORT METHOD

CRITERIA FOR INCLUSION

Celent actively reviews vendor systems in the insurance software market. Some solutions qualified for profiles that include customer references and a Celent opinion of the solution. These solutions are also ranked in the ABCD Vendor View.

Celent's ABCD Vendor View analysis is used to highlight vendors that have attained success selling their systems in the North American market. In general, in order to have a full profile and be included in the ABCD Vendor View grids, a policy administration solution had to have:

- At least one new sale to one new customer within the last 24 months for a region.
- At least three live customers per region, at least one of which must be an insurer.
- Participation by at least three reference customers.

There are 20 solutions that meet these criteria and are included in this report with ABCD profiles.

Even if a vendor is not included in the ABCD Vendor View, Celent provides a system profile of many other solutions. Solutions that did not qualify to be ranked in the ABCD Vendor View do not include a customer reference or a Celent opinion. There are 12 solutions that meet these criteria and are included in this report but are not included in the ABCD Vendor View grids.

EVALUATION PROCESS

Celent sent a detailed request for information to a broad set of policy administration system vendors. Not all vendors chose to participate. After completing the RFIs, each eligible vendor provided a briefing and demo for Celent concentrating on usability and functionality for everyday users, as well as configurability for IT and system administration users.

Celent also asked the references provided by each vendor to complete a survey and/or to be interviewed to obtain their view of the system's business and technology value.

The RFIs and the reference surveys and interviews provided quantitative and qualitative data, much of which is included in this report. Vendors had an opportunity to review their profiles for factual accuracy and to provide their own perspectives, but were not permitted to influence the evaluation. Some of the vendors profiled in this report are Celent clients, and some are not. No preference was given to Celent clients for either inclusion in the report or in the subsequent evaluations.

**Key
Research
Question**

2

What are the solutions in the North American marketplace by line of business?

This report indicates the lines of business for 33 policy administration solutions.

Vendors with full profiles are ranked in the ABCD Vendor Views.

It should be noted that although a particular system is shown as implemented in only one major line, it still may be capable of supporting both commercial and personal business. For example, an insurer looking for a personal lines solution may wish to contact a particular commercial lines vendor because of that vendor's technology or delivery capabilities.

CELENT'S ABCD VENDOR VIEW

Celent has developed a framework for evaluating vendors. This is a standard representation of a vendor marketplace designed to show at a glance the relative positions of each vendor in four categories: Advanced and agile technology, Breadth of functionality, Customer base (i.e., relative number of customers), and Depth of client services. The Celent Vendor View shows relative positions of each solution evaluated and does not reflect an abstract evaluation. Each vendor solution is judged relative to the others in the group.

While this is a standard tool that Celent uses across vendor reports in many different areas, each report will define each category slightly differently. For this report, some of the factors used to evaluate each vendor are listed in Table 1. Celent's view of the relative importance of each factor, and of the solution and vendor's capabilities also contributes to the final rating.

Table 1: Examples of Possible Factors Used in Celent Policy Administration System ABCD

ABCD CATEGORIES	POSSIBLE FACTORS
ADVANCED TECHNOLOGY (AND FLEXIBLE TECHNOLOGY)	<ul style="list-style-type: none"> Platform and Modernity (Code base, platform, databases, localization capabilities, etc.) UI (Ease of use, mobility) Data and adaptability/extendibility (Openness of application, code base, data model, etc.) Integration (Web services, APIs, reference comments) Scalability and cloud (Cloud readiness, largest installations, etc.) Ease of change (Change tooling, debugging capabilities, etc.)
BREADTH OF FUNCTIONALITY	<ul style="list-style-type: none"> Functions and features provided in base offering In production lines of business and number of deployments for each User experience
CUSTOMER BASE	<ul style="list-style-type: none"> Number of live insurers using the system for personal, commercial, or specialty lines of business New client momentum Size professional services and support team in region
DEPTH OF CUSTOMER SERVICE	<ul style="list-style-type: none"> Insurers' post-implementation experiences

Source: Celent

THE XCELENT AWARDS

Within this framework, the top performers in each of the ABCD dimensions receive a corresponding XCelent Award:

- XCelent Technology for the leading Advanced Technology score
- XCelent Functionality for the leading Breadth of Functionality score
- XCelent Customer Base for the leading Customer Base score
- XCelent Service for the leading Depth of Service score

Key
Research
Question

3

Which systems win Celent's 2018 North American Property & Casualty/General/Specialty lines PAS ABCD Awards?

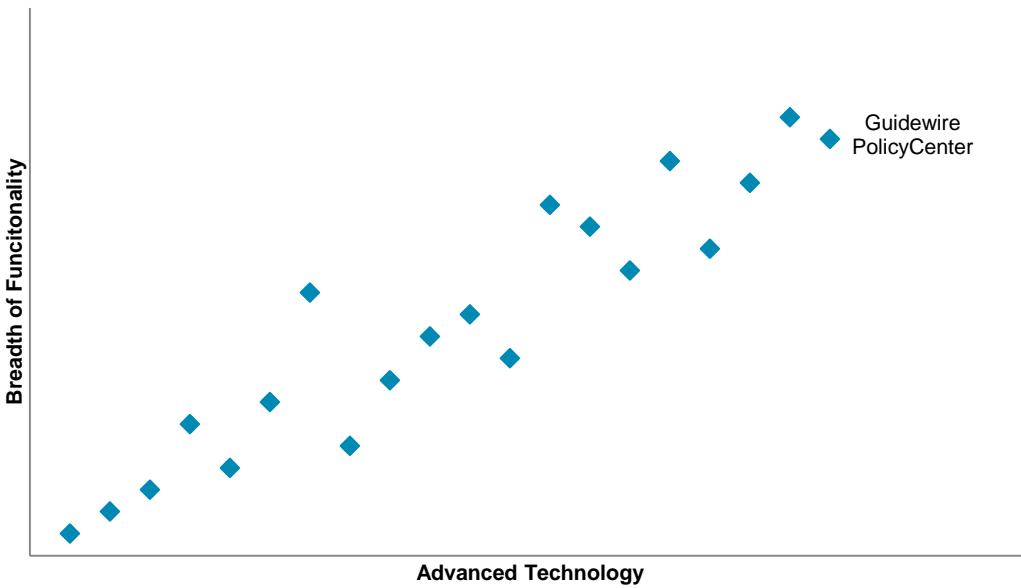
XCelent Technology: Guidewire PolicyCenter

XCelent Customer Base: Guidewire PolicyCenter

XCELENT TECHNOLOGY AND XCELENT FUNCTIONALITY

Figure 6 positions each vendor along two dimensions: the vertical axis displaying the relative rankings for Advanced Technology and the horizontal axis showing relative Breadth of Functionality rankings. The XCelent Advanced Technology winner is Guidewire PolicyCenter.

Figure 6: XCelent Technology and XCelent Functionality

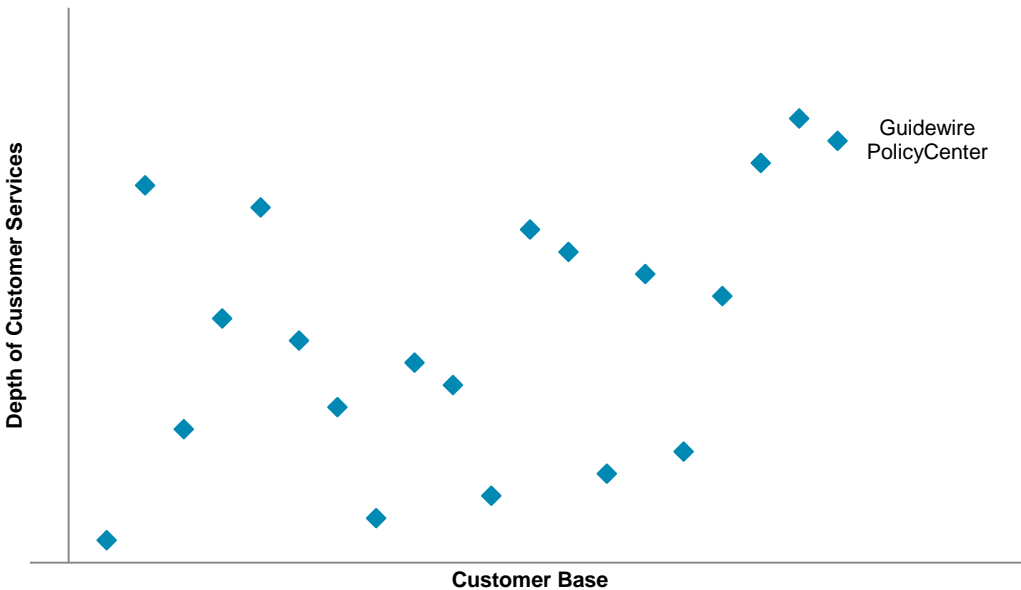


Source: Celent

XCELENT CUSTOMER BASE AND XCELENT SERVICE

Figure 7 positions each vendor along two dimensions: the vertical axis displaying the relative level of depth of customer service and the horizontal axis displaying the relative customer base. The XCelent Customer Base award is given to Guidewire PolicyCenter.

Figure 7: Customer Base and Depth of Customer Service



Source: Celent

Celent advises insurers to take into account past vendor results, but not to compare the placement of vendors in the charts from prior years, because not only is the market changing, but so has our analysis. The criteria used to determine the A, B, C, and D rankings in this report are broadly similar, but not identical, to the criteria used in the previous Celent PAS vendor report published in 2015. For example, in this report, we are considering new criteria in Advanced Technology related to testing and speed of change approaches. The market is also evolving due to acquisitions and partnerships, solutions development, and alternative delivery models.

We suggest that insurers consider their specific needs and each vendor for what it offers. Although they are very successful in one or more of the criteria, the XCelent Award winners may or may not be the best match for an insurer's specific business goals and solution requirements.

VENDOR PROFILES

ABOUT THE PROFILES

Each of the profiles 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. As stated earlier, if a system was included in the ABCD Vendor View analysis the profile also includes customer feedback and Celent's opinion of the system in regards to usability, product configuration, and workflow abilities as well as summary comments.

Each profile includes figure outlining available end-to-end components and the features/functions availability 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.

If included in the ABCD Vendor View analysis, the vendor's reference feedback gathered through the use of an online survey is presented in the profile. Customer feedback sections include a diagram that displays the average ratings given to the vendor in five categories. Each average rating includes up to eight underlying ratings shown in Table 2 scored by the customer on a scale of 1 to 5, where 1 means poor and 5 is excellent. Open ended comments regarding the system and the vendor are also included in the feedback section.

Table 2: Customer Feedback Ratings

DIAGRAM AVERAGE (QUESTION ASKED)	RATINGS INCLUDED IN AVERAGE*
FUNCTIONALITY (HOW WOULD YOU RATE THE FEATURES AND FUNCTIONS YOU ARE CURRENTLY USING?)	Producer/Agent Portal Policyholder Portal Customer Service Desktop Underwriter Desktop/Underwriting and Case Management Product Configuration/Definition and Maintenance Workflow / Business Process Design Business Rules Document Management Business Intelligence Analytics Billing Claims Management Commission Management Reinsurance Management Regulatory Reporting

<p>USER EXPERIENCE</p> <p>(DO THE FOLLOWING USERS FIND THIS SYSTEM EASY AND EFFICIENT TO USE? USING A 1 TO 5 SCALE, WHERE 1 IS VERY DIFFICULT TO USE AND 5 IS VERY EASY TO USE.)</p>	<p>Underwriters</p> <p>Underwriter support staff</p> <p>Policy service staff</p> <p>System administrators</p> <p>Business Analysts (doing configuration)</p>
<p>TECHNOLOGY</p> <p>(HOW WOULD YOU RATE THE TECHNOLOGY OF THIS SOLUTION ON A SCALE OF 1 TO 5, WHERE 1 MEANS VERY POOR AND 5 MEANS EXCELLENT?)</p>	<p>Ease of system maintenance</p> <p>Flexibility of data model</p> <p>Scalability</p> <p>Continuous improvements in technical performance</p> <p>Configurability</p> <p>Ease of integration with internal and external data/systems</p>
<p>IMPLEMENTATION</p> <p>(IF YOU ARE FAMILIAR WITH THE ORIGINAL IMPLEMENTATION OF THIS SYSTEM AT YOUR COMPANY, HOW WOULD YOU RATE THIS VENDOR IN THE FOLLOWING AREAS?)</p>	<p>Responsiveness</p> <p>Project management</p> <p>Implementation completed on time</p> <p>Implementation completed on budget</p> <p>Overall project success</p> <p>Knowledge of your business</p>
<p>SUPPORT</p> <p>(AFTER IMPLEMENTATION, HOW WOULD YOU RATE THE VENDOR'S PROFESSIONAL SERVICES STAFF IN THE FOLLOWING AREAS?)</p>	<p>Skill and knowledge of professional services staff</p> <p>Timeliness of responses to service requests</p> <p>Quality of response to service requests</p> <p>Cost of services</p> <p>Overall value of professional services</p>

Source: Celent

*Scale 1 to 5, where 1 is poor and 5 is excellent. Not Applicable or No Opinion not included in average.

GUIDEWIRE SOFTWARE INC.: GUIDEWIRE POLICYCENTER

XCELENT Technology 2018

XCELENT Customer Base 2018

COMPANY

Guidewire is a publicly traded company headquartered in Foster City, California with sales, product development and professional services personnel located throughout the North American, European, Middle Eastern, and African, Asia-Pacific, and Latin American regions. Guidewire’s business is providing software and services to the insurance, property /casualty and workers' compensation industries. The company has over 1,800 employees. Over 700 are professional services staff located globally. Guidewire does not provide employee breakdown by product or region.

Guidewire holds an annual user conference during which customers are able to meet and discuss the products with fellow customers and Guidewire experts. The last conference, Connections 2017, was held November 13–16 in Las Vegas. Connections consist of three days of best practices, customer case studies, networking, and an entire community of Guidewire experts. These include sessions, workshops and roundtables that allow customers to learn and ask questions of industry experts, team leaders and Guidewire’s software developers. This allows for exposure to industry leaders, both from Guidewire as well as partners and consultants who have completed the complex process of connecting new opportunities to organizations who can take advantage of them. Clients can network with hundreds of fellow customers who work with Guidewire products and can answer questions and present case studies on how they have worked with the product. The general session content includes Guidewire’s senior product management and CEO as well as keynote speakers, customers and partners. Clients also discover what’s new in Guidewire’s InsurancePlatform including advancements in Guidewire’s core, data and analytics and digital engagement products. There were more than 2,000 attendees at this year’s conference.

Table 3: Company and Product Snapshot

COMPANY	Annual corporate revenues	USD\$514M (FYE 2017)
	Year founded	2001
	Exchanges/Symbols	NYSE: GWRE
	Headquarters Location	Global: Foster City, California
PAS SYSTEM	Name	Guidewire PolicyCenter®
	Current release and date of release	PolicyCenter 9, released June 2016
	Release intervals	Minor enhancements: Maintenance releases are released on an as-needed basis Major enhancements: Approximately every 2 years

Upgrades	<p>Insurers can skip multiple versions (e.g., go directly from version 4.0 to version 7.0).</p> <p>Vendor support for prior versions: They support current versions and more than two prior but not all versions.</p>
Target market	<p>Size of Company: Mid- to large-size P/C insurers.</p> <p>Product Lines: Personal and commercial lines, including workers' compensation.</p> <p>Primary North American geography: Canada and US.</p>

Source: Vendor RFI

CELENT OPINION

Guidewire continues to invest significant sums of money in their products and PolicyCenter is no exception. The product is in production for all lines of business including workers comp and is in production for carriers of all sizes. It provides support for all the expected functionality as well as some nice differentiators. Some of these differentiators are around traditional underwriting processes such as approvals “contingent on,” or collaboration with producers. Others are focused on some of the newer processes. For example, Guidewire has integrated their predictive modeling tool with a nice visualization of an account’s score. Guidewire continues to invest heavily in the ecosystem of vendors that are “*Ready for Guidewire*” with prebuilt accelerators.

The product design environment is becoming more business user-friendly. They continue to invest heavily in templates and ISO ERC to improve the speed of new product development and ongoing product maintenance. Their product content analyzer provides a three point analysis comparing the current product with the new update and the proposed change.

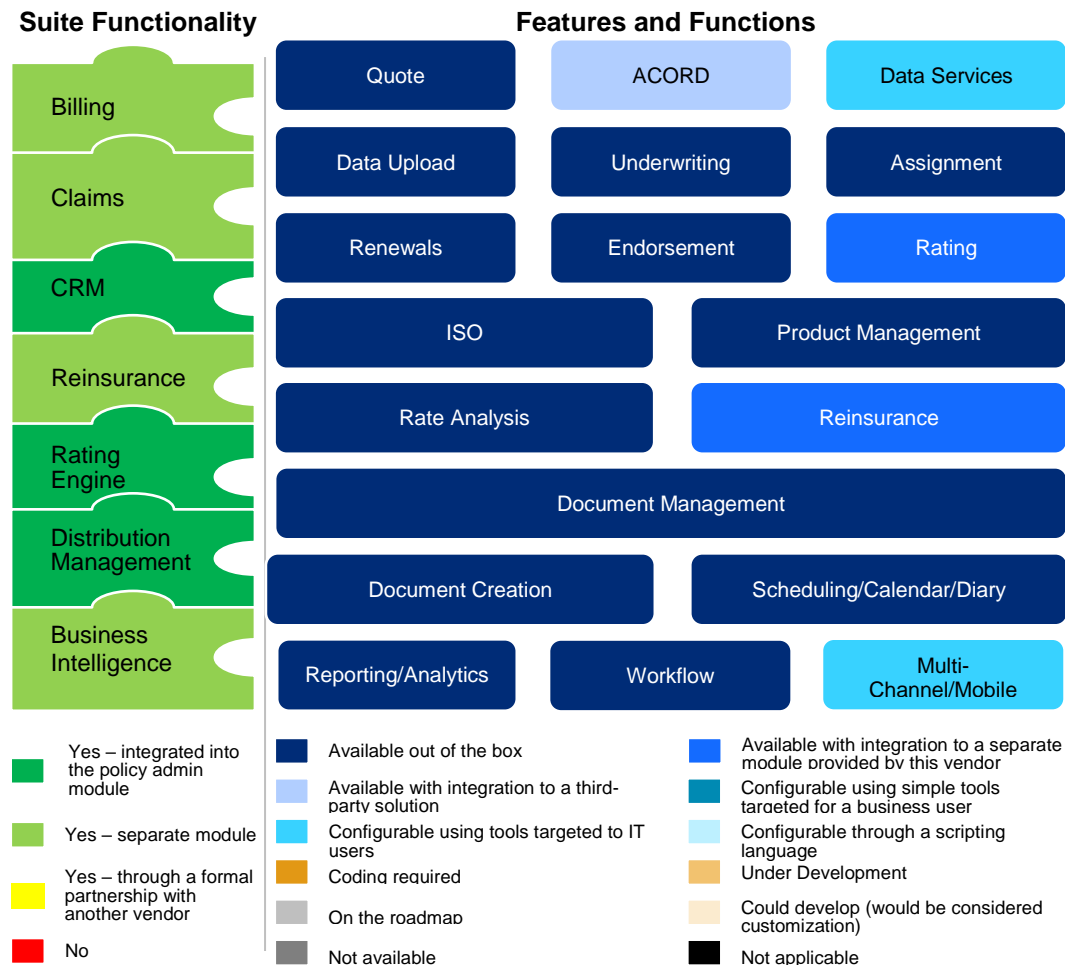
PolicyCenter has two configuration environments with an interesting combination of tools and wizards. Administrator is designed for business analysts (or designated business users) and includes a number of prebuilt areas that allow configuration through simple drop downs. Studio provides a more technical environment for developers which supports extremely granular configurations and uses Guidewire’s scripting language, Gosu. Other noteworthy features of PolicyCenter’s configuration environment include the ability to create wizards for common workflows and a workflow drag and drop graphic user interface.

This solution is best suited for a sophisticated carrier with the ability to manage the configuration tools. The functionality is very rich and continues to grow as Guidewire continues to invest significant funds in R&D. Overall, it’s no surprise to Celent that PolicyCenter continues to be a leading policy administration solution, with a well-designed UI, broad functionality, and a substantial and growing customer base.

OVERALL FUNCTIONALITY

The majority of the functionality is available out of the box. Exceptions include uploading an ACORD app, which is available with integration to a third party solution; integration with third party data services, which is configurable using tools targeted for an IT user; reinsurance, which is available with integration to a separate module; and multichannel/mobile, which is available with integration to a separate module.

Figure 8: Functionality



Source: Vendor RFI

CUSTOMER BASE

They have a total of 60 insurer clients in production with their system in the region. The breakdown of their client base is as follows: Tier 1 (six clients), Tier 2 (24 clients), Tier 3 (eight clients), Tier 4 (17 clients), and Tier 5 (five clients).

Table 4: Customer Base

NORTH AMERICAN CUSTOMER BASE	
In production with current release or any release less than four years old	35
In production with release four or more years old	25
New clients since 2015	US: 21 Canada: 4
Deployment method (percentage of client base)	On Premise: 86% Other: 14%
Marquee clients	Nationwide, The Hartford, C N A

Source: Vendor RFI

CUSTOMER FEEDBACK

Three clients provided feedback on Guidewire PolicyCenter. One is a Tier 5 insurer, and the others are Tier 2 insurers. One uses the system primarily for personal lines, one uses it primarily for workers compensation, and one uses it primarily for commercial lines including workers compensation. Two of the three insurers have been using it for one to three years, while the last insurer has been using it for less than one year.

Functionality received slightly above average scores overall. Portals scored below average and so brought the overall score down. Otherwise, the highest scores were for automated processing of business and management tools. Configurability received high scores from all, although one insurer noted that major changes were difficult. Technology scored high from all insurers, with scalability configurability and overall satisfaction receiving the highest scores. The lowest score, which was still above average, was the ease of integrating with a stand-alone reinsurance system. Regarding implementation, while one insurer reported problems with issue resolution, generally scores were above average. Completion of the project on time and on budget was rated average. Ongoing support was rated high across all categories except meeting SLAs and coming in on budget, which were rated average.

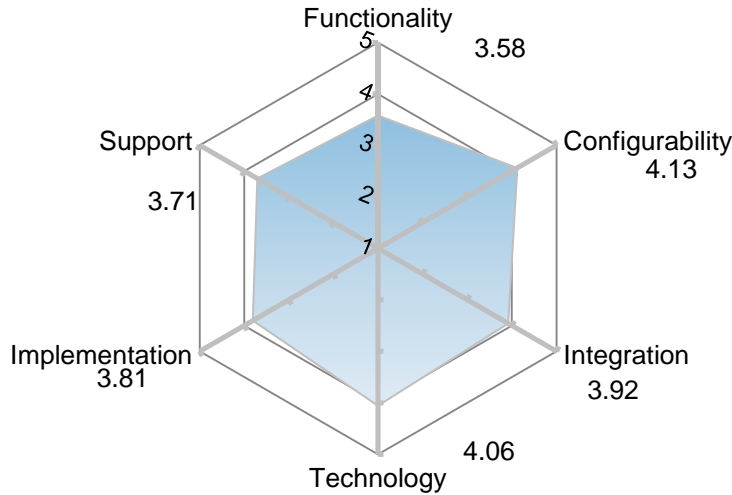
When asked what they like best carriers commented on a variety of topics. *“R&D, Guidewire puts a lot of time and money into R&D.” “Ease of use - great user interface, very intuitive to end users.” “Customer centric. The CEO and management team are always available.” “The system meets our needs for the future.”*

When asked what they'd like to see improved, most comments focused on the implementation. *“PolicyCenter and ClaimCenter are not integrated. The solution was sold as an integrated solution for PolicyCenter, BillingCenter and ClaimCenter. We needed to write custom code to connect ClaimCenter and PolicyCenter.” “During implementation it was nearly impossible to get the support needed from Guidewire without paying to bring on Guidewire professional services consultants as part of a paid engagement. The only other option was to open a ticket which had a low priority and was very difficult to get resolved in a reasonable amount of time.” “We used another firm as the integrator for our implementation. We would consider using GW at the next opportunity. As well, we would like to engage them early on and frequently during inception and implementation.”*

Overall customers are satisfied with PolicyCenter. *“We are overall satisfied with the Guidewire product however if we need assistance for implementations we would not go to Guidewire for professional services. The rates are not equivalent to market prices and other preferred SIs of Guidewire provide the same value for a fraction of the price.”*

Figure 9: Customer Feedback

Customer average rating (1=very poor; 5=excellent)



Source: 2017 Celent PC PAS customer feedback survey

LINES OF BUSINESS SUPPORTED

Table 5: Selected Lines of Business Supported

LINE OF BUSINESS	AVAILABILITY	NUMBER OF CLIENTS IN PRODUCTION
PERSONAL AUTO	In production today	18
HOMEOWNERS	In production today	15
COMMERCIAL AUTO	In production today	17
COMMERCIAL PROPERTY	In production today	20
COMMERCIAL LIABILITY	In production today	17
WORKERS COMP	In production today	14
BUSINESSOWNERS POLICY	In production today	5

Source: Vendor RFI

TECHNOLOGY

The technical architecture is a Java application server. Each Guidewire application runs as a standard three tier architecture with a client on the front end running a standard web browser, an application server hosting the application, and a database storing the content. They offer plugins and project accelerators to quickly enhance the base product.

The UIs and process flows are designed to be mobile device-independent. The solution does not natively support mobile apps.

Table 6: Technology Options

TECHNOLOGY	SPECIFICS
CODE BASE	<p><u>Core technology:</u> Java: 100%</p> <p><u>Business users:</u> Java: 100%</p> <p><u>Developers:</u> Java: 5%</p> <p>Other (Customers are able to extend system business logic using Java or Gosu (A JVM-based language). Gosu's ECMAScript-derived syntax is very accessible to those with experience in existing object oriented languages. It was purpose-built for native and automatic integration with the application data model and the platform's object-relational database mapping layer): 95%</p>
OPERATING SYSTEMS	<p>Implemented in Java</p> <p>Operating systems deployed on:</p> <p>All customers are required to use a 64 bit OS, and a 64 bit JVM for production. Guidewire supports application servers running on the following operating systems which are also supported by the application server vendor: RHEL 6 or higher; SUSE/SLES 11 or higher; OEL 6 or higher; Windows 2012 or higher; or AIX 7 or higher</p>
APPLICATION SERVERS	<p>Preferred: Apache Tomcat, Red Hat JBoss EAP, IBM WebSphere Application Server, Oracle WebLogic Server</p> <p>Additional options: Guidewire's Platform Support Matrix identifies recommended JRE/JDK versions for each of the preferred application servers.</p>
DATABASES	<p>Preferred: Oracle; Microsoft SQL Server</p> <p>Additional options: None</p>
INTEGRATION METHODS	<p>Preferred: Web Services</p> <p>Additional options: ACORD Standard XML; Other XML; JSON format ; MQSeries, JMS or similar queue technology; Flat files; Custom API</p> <p>Public API integrations:</p> <p>The mating of the application to the systems in question is undertaken during the implementation project using the array of flexible integration capabilities mentioned in the PolicyCenter Architecture attachment. In addition, customers can make use of existing integration design documentation or even reference starter code in the form of Accelerators, which are available at no extra cost via the Guidewire Customer Portal.</p>
BUSINESS USER UI	<p>Main UI browser based: Yes</p> <p>All functions available through a browser interface: Yes</p> <p>Interactive UI through the use of JavaScript or similar technology: Yes</p> <p>Main UI thick client based: No</p> <p>Windows interface available: No</p> <p>Apple Mac interface available: No</p> <p>Linux based interface available: No</p> <p>Is the design of the user interface responsive to different size screens? Yes</p>

TECHNOLOGY	SPECIFICS
API	API documentation: Yes API management: Supports local or global standards such as ACORD application creation and rendering. Developer API portal: Yes Manage access to APIs and track API usage by developers: No
SCALABILITY	Largest deployment: Over 5,000 users and over 1 million policies

Source: [Vendor RFI](#)

The data model supports the full policy lifecycle and is designed to support straightforward extensions by each customer to meet their unique business needs. Customers are free to feed data from PolicyCenter to external systems (such as reporting systems) that may use industry models (such as IAA) as their basis. It is not based upon any particular third party industry model. Each Guidewire application has an extensive base data model, supporting the complete claims, policy, and billing lifecycles. Customers use included tooling (Guidewire Studio) to further extend the base data model with new entities and new fields to support their unique needs. The data model can be extended by carriers using the Guidewire Studio configuration tool. Customers never modify the application source code for any reason. For the insurer to make changes to the data model, a set of tools is provided that allow technical staff to extend the data model and the SQL database schema. The data model is willing be released to an insurer. It can be published to an insurer's data model and mapped to an intermediate format.

Carriers do not have access to core code; a configuration tool targeted to a business user is available for insurance product definition. Screen definition, workflow definition, business rule definition, interface definition and data definition are configurable using tools targeted for an IT user. Changes to the system are possible through reusable components, inheritance, and other schemes. All product components (including product features, coverages, benefits, transactions, rules and calculations) are reusable for multiple products.

Product rating changes can be analyzed using an impact analysis tool that provides a report, detailing products and channels affected and can be tested using a specific tool provided. A restart of the system is required for insurance product modification/configuration, new product creation, change to underlying data model, new web service or integration point, change to portal, business rule change and workflow change. However, Guidewire now supports Product Model Rolling updates which does not require a server restart.

IMPLEMENTATION, PRICING, AND SUPPORT

The preferred implementation approach is Agile. A typical project team of 12 - 50 people consists of resources from the insurer (75%), Guidewire (25%) and external professional services firms (25%). Service-level agreements are offered.

The average time to get the first line of insurance live in a single jurisdiction is typically 12 to 18 months depending on the integration requirements and the level of configuration required, with second and subsequent lines taking four to six months in the same jurisdiction. Second and subsequent jurisdiction implementations typically take four to six months.

Guidewire offers term license, perpetual license, and risk-based (available for Guidewire Live, Predictive Analytics, InsuranceNow) pricing options. The license fees are typically

based on premium volume. Carriers may also need to license the following third party software: Third party hardware and software (i.e., application servers, database, document management systems, etc.).

The total cost to implement Guidewire PolicyCenter can vary according to the size, capabilities and available resources of the client, and the overall scope of system use.

Table 7: Pricing Estimates

INSURER SCENARIO	LICENSING	VENDOR FEES	THIRD PARTY FEES	MAINTENANCE FEE / OTHER
ASSUMING TWO-YEAR IMPLEMENTATION PERIOD, FOR REGIONAL INSURANCE COMPANY, a single licensed company that writes in five states, for eight lines of business, producing annual DPW of US\$200 million.	US\$1 million to \$5 million	US\$1 million to \$5 million	No cost, not applicable	15%
ONE-YEAR POST IMPLEMENTATION FOR REGIONAL INSURANCE COMPANY	N/A	No cost, not applicable	No cost, not applicable	15%
ASSUMING FOUR-YEAR IMPLEMENTATION PERIOD, FOR NATIONAL INSURANCE HOLDING COMPANY, which has four companies, writes in 32 states, across 24 lines of business and has DPW of US\$2.0 billion or more.	US\$10 million to \$15 million	US\$1 million to \$5 million	No cost, not applicable	15%
ONE-YEAR POST IMPLEMENTATION FOR NATIONAL INSURANCE HOLDING COMPANY	N/A	No cost, not applicable	No cost, not applicable	15%

Source: Vendor

CONCLUDING THOUGHTS

FOR INSURERS

There is no single best policy administration solution for all insurers. There are a number of good choices for an insurer with almost any set of requirements. An insurer seeking a new policy administration system should begin the process by looking inward. Every insurer has its own unique mix of lines of business, geography, staff capabilities, business objectives, and financial resources. This unique combination, along with the organization's risk appetite, will influence the list of vendors for consideration.

Some vendors are a better fit for an insurance company with a large IT group that is deeply proficient with the most modern platforms and tools. Other vendors are a better fit for an insurance company that has a small IT group and wants a vendor to take a leading role in maintaining and supporting its applications.

Most policy administration systems bring some level of out-of-the-box functionality for various lines of business and operating models. Many systems offer powerful configuration tools to build capabilities for both known and future requirements.

We recommend that insurers that are looking for a policy administration system narrow their choices by focusing on four areas:

- The functionality needed and available out of the box for the lines of business and states desired. Check to see what is actually in production.
- The technology — both the overall architecture and the configuration tools and environment.
- The vendor's stability, knowledge, and investment in the solution.
- Implementation and support capabilities and experience.

FOR VENDORS

As a group, vendors continue to make significant investments in their policy administration systems. The solutions are delivering more functionality, improving configuration tools, and are more connected, with SOA and web services becoming the de facto standard. Although these trends are all very good news for insurers, they do make the competitive challenges facing vendors that much more daunting.

Celent recommends vendors differentiate themselves by:

- Focusing on improving usability for both new and experienced users and managers.
- Making implementation faster and less expensive.
- Continuing to build out configuration environments to put change controls in the hands of the carriers.

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LEVERAGING CELENT'S EXPERTISE

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