DATA WAREHOUSE SOLUTIONS FOR PROPERTY/CASUALTY INSURERS

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Authorized Excerpt

SUMMARY

This authorized excerpt contains content from a Novarica Market Navigator report that provides an overview of the data warehouse solutions currently available to North American property/casualty insurers. The report contains profiles of ten vendor solutions, summarizing the vendor organization, technology used, differentiators, client base, lines of business supported, deployment options, implementation approaches, upgrades/enhancements, and key functionality.

This excerpt includes the profile of Insurity. The full report includes profiles of all providers listed in the graphic above.

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INTRODUCTION

About This Report

This report is designed to provide an overview of the current solution provider marketplace for data warehouse and data technology stack solutions as well as to assist property/casualty insurers with drawing up short lists of potential providers based on vendor market position and offering details.

The solution provider profiles included within Novarica Market Navigator™ reports do not provide subjective analysis of each vendor's solution. The reports are based on direct responses to a universal RFI distributed by Novarica, technical discussions with each vendor to verify the RFI responses, and subsequent follow-ups with the vendors to validate and confirm responses.

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

These reports do not render judgment, as specific insurer needs determine the fit of a potential provider. Rather, Novarica provides these types of advisory consultations to more than 100 insurer clients through its retained advisory services.

MARKET OVERVIEW

The Insurance Enterprise Data Warehouse

The center of many insurers' data technology stacks is the enterprise data warehouse. The warehouse serves as a repository of most or all of an insurer's data and is sometimes known as the "single source of the truth" in the organization. The reality is often shy of this goal, with the warehouse representing only a partial view of an insurer's data or a subset of its systems, serving as a source for reports and business intelligence as well as helping downstream processes with feeds for GL and regulatory reporting.

The warehouse is only one piece of the traditional data tech stack at insurers; in this report, "data warehouse" is shorthand for several components working together to source data, store data, and report and visualize that data. One clear trend in the marketplace is vendors that used to provide individual components have grown their offering into this complete data technology stack, much like how policy admin vendors have expanded to provide billing and claims. There are still vendors who focus on smaller offerings, but this report covers only those who provide a full suite.

The foundations of an insurer's data technology stack include a combination of the following components:

- Data governance and dictionaries
- Data movement, quality, and cleansing
- Insurance data models
- Data warehouses and data marts
- Reports, dashboards, and BI content

This Market Navigator focuses on the tools and platforms that help insurers manage and report on their own data, but not the tools for higher-order analytics or the providers of third-party data.

Novarica's research reflects year-over-year growth of interest in data warehouses and data technology to improve data and analytics capabilities. Novarica's *IT Budgets and Projects 2020* survey results ranked BI/data analytics as a top priority business leaders want IT to deliver, and CIOs across both P/C and L/H/A product lines included this area as second or third on their list of top IT priorities for next year. Despite this and continued plans to devote budget and staff resources to expanding warehouse and BI use, most insurers have implemented only basic capabilities.

Many carriers struggle with roadblocks, including multiple core systems with silos of data, questionable data quality or completeness in older systems, a policy view rather than a customer view, and a lack of formal data governance and data definitions. While data technology solutions can help overcome these issues, insurers with successful data strategies report that key factors include strong business leadership and commitment, organizational change, and the ability to show initial value and incremental progress with data initiatives to develop business user acceptance and adoption.

The Next Generation Data Warehouse

As insurers look to improve capabilities to capture, visualize, and understand new forms of data from big data sources, solution providers are increasing their focus on providing tools for big data. More solution providers have begun partnering with third-party data source providers and/or started to add capabilities to store and analyze data using unstructured databases as well as tools such as Hadoop and NoSQL.

Some vendors are also adding capabilities that can analyze streaming data from Internet of Things (IoT) devices. Establishing a broad data strategy with a permanent record of data across multiple systems will become even more important for insurers later when they bring on AI technologies that require a strong backbone of historical information.

Carriers who are rearchitecting their data environments are giving strong consideration to incorporating unstructured data lakes into their data architecture as a repository for raw structured data. In fact, for many insurers, data lakes will replace operational data stores and enterprise data warehouses as the single location where both internal and external data can be managed before being moved to data marts for reporting and analytics. In those cases, structured data warehouses will remain only to power downstream legacy processes.

Trends in the Marketplace

Trends in data warehousing, such as the use of big data/data lake technology, data streaming, and cloud massively parallel processing (MPP) data platforms, are now finding their way into the data strategies of many large insurers. While these trends have limited impact in this report to date, Novarica expects this to change in the coming years.

Traditional data warehouses are modeled using star or snowflake schemas to optimize for report and query performance. Design of these analytical models differs significantly from the normalized models found in core systems, resulting in significant effort to transform the data from one form to another. Processes that move and transform the data (called ETL—extract, transform, and load) are complex, often representing up to 80% of the effort involved in the data warehouse build. And since ETL processes are complex, they also tend to be difficult to change, restricting the ability of the warehouse to respond to changes in an agile manner.

Emerging approaches for analytics built on cloud platforms like AWS Redshift, Snowflake, Azure Synapse, and Google BigQuery take a different approach. Since query performance is less of a concern with these platforms, analytics data models can more closely resemble the normalized models found in core systems. Data transformation that was previously done via batch ETL can now be done "just in time," either as part of reports or virtualized data marts. The processes that load these environments are often called ELT, reflecting the change in order of the steps.

Deferring the transformation has a number of benefits:

- Effort required to build the analytics environment/data warehouse can be significantly lower, reducing cost, risk, and time to value.
- Analytics environments can evolve in a more rapid and agile manner.
- Since load processes are lightweight and relatively simple, there is less need for the overnight batch processing found in traditional data warehouses. This, combined with the use of data streaming technologies like Kafka, allows the analytics environment to be updated in real time.

This shift is part of a larger evolution from "Schema on Write" to "Schema on Read." Schema on Write is the traditional approach, where the data model or schema is defined up front and then data is written to it. With Schema on Read, the data is loaded into the analytics repository in its original form, and consumers are then free to interpret and transform the data to suit their own ends when they read it out.

The Schema on Read approach originally emerged in response to the challenges of managing big and semi-structured data sources, but its influence is growing as architectures for big data and traditional data warehousing converge.

Business Intelligence vs. Predictive Analytics

One area not covered in this report is predictive analytics. Predictive analytics refers to the creation and use of predictive models, typically to generate a score that can then be interpreted by a human or an automated process. This score is most commonly used in the insurance industry to assess underwriting risk.

The use of predictive analytics is a significant part of the insurance industry's approach to data strategy, and it can be considered part of an overall data technology strategy. However, this kind of high-order analysis tends to involve its own set of tools and services, including specialized components both for generating predictive models and for applying them during runtime.
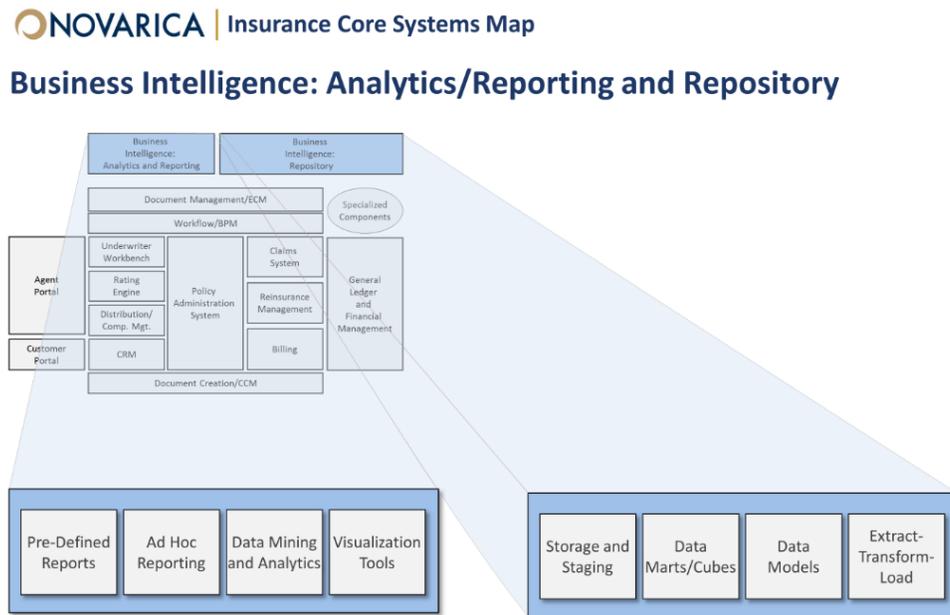
Some of the vendors covered in this report do offer predictive analytics tools (or predictive analytics scores via as-a-service offerings), and as such predictive analytics may be mentioned in the profiles in passing.

What is important to recognize is how the data warehouse, BI solutions, and predictive analytics do and do not fit together in a broader data strategy. An insurer with a strong data foundation will be better positioned to analyze its business, look across multiple sets of data, and identify the kinds of key variables that feed predictive models. At the same time, since many insurers choose to work with third-party vendors to build out their predictive models or leverage general predictive models based on a third party's expertise, it's possible for an insurer to utilize predictive scoring on a parallel track to its other BI efforts.

KEY COMPONENTS

In the Novarica Insurance Core Systems Map, the "Repository" represents the enterprise data warehouse, while "Analytics and Reporting" represents the reporting typically built on top of a data warehouse. Vendors in this space have evolved to provide full-stack data technology solutions that include both the warehouse and the reporting, much in the same way policy administration suite vendors have expanded to include claims and billing. The Core Systems Map represents these two categories together as "Business Intelligence" with the visual map and the components defined below:

Figure 2: Novarica Insurance Core Systems Map (Exploded View/At-A-Glance)

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Predefined Reports

Some solutions are delivered with a library of out-of-the-box reports, leveraging the vendor's domain expertise to speed up an insurer's ability to gain insights from its data. Most insurers will want to add to or alter these reports to suit their specific needs, but they should not underestimate the time required to build good report content. Sometimes knowing what question to ask is as valuable as being able to ask the question.

Ad Hoc Reporting

Ad hoc reporting provides the ability to access data where the inquiry is defined at runtime, rather than the inquiry being preconfigured in the system. A good data discovery tool can allow both business users and data analysts to get quick answers to complex questions without requiring IT support for report creation.

Data Mining and Analytics

The next level beyond ad hoc reporting is online analytical processing (OLAP) capabilities for multidimensional analysis and data mining. Well-known analysis platforms are provided by major horizontal technology providers such as SAP, Microsoft, IBM, and Oracle, but insurance-specific offerings and newer vendors also offer complex analytics solutions for insurers to consider.

Visualization Tools

No matter what type of reporting is being done, there should be some kind of presentation environment for viewing the data in the warehouse. A simple visualization tool might primarily display tables, and for some users this may be all that is needed. A more complex tool will have advanced report visualization features, such as a variety of charts and graphs, geospatial mapping, and dashboards that can support multiple data sets at once. Some visualization tools will have interactive functionality with "drill-down" capabilities to get to core data underneath.

Many vendor offerings rely on third-party visualization tools and also make it possible for an insurer to utilize their own preferred visualization tool on top of the data warehouse. Utilizing an external tool, however, means an insurer is not able to leverage the reports and dashboards a vendor has pre-built on top of the insurance data model.

Storage and Staging

In order to build a proper business intelligence environment, an insurer should store and manage its data for reporting purposes. This means database technology. For the most part, well-known players provide the underlying databases (IBM, Oracle, Microsoft). With the rise of unstructured/big data, there are new players in this space to consider.

Data Marts/Cubes

Data marts are specific subsets of enterprise data by subject area or for use by a specific user function or group, typically stored in a dimensional model and often sourced from an EDW.

Some data subject areas covered by the models and content provided may include agency/producer, submission/quote, customer, policy, billing, claims, financials, reinsurance, and workflow metrics.

Data Models

Vendors with an insurance-specific offering often provide data models to help an insurer jump-start collection and normalization of data across its systems. Different models might be provided for staging, ODS, and warehouse environments. Often, the most complex part of a data warehouse project is the effort to normalize data from multiple core systems into a single model. A model provided by a vendor that has been vetted by many other insurers can be a big accelerator.

Extract Transform Load

Just because an insurer has data warehouse technology and a reporting environment doesn't mean that the data is readily available for use. First, a process has to be put in place to access the data in the various core systems. The ETL component is made up of the tools, scripts, and routines that move data in, out, and within the data repositories. ETL is often the costliest and most time-consuming part of establishing an information environment.

Buy Vs. Build

Unlike most other components of a carrier's technology stack, the decision of whether to buy or build a data warehouse and business intelligence solution may not always come out on the buy side. The case for building a warehouse may be compelling and will be highly dependent on the size of a carrier and the variety of data sources the carrier can access. Smaller carriers or those with a limited set of data sources may find buy to be the right approach, while larger carriers or those with a need to combine data from many sources may find that building a solution is preferable.

The single largest part of a data warehouse project is the ETL/ELT component. Mapping data from source to target is labor-intensive, despite all the modern tooling available to accelerate this process. Suite vendors have a big advantage when it comes to mapping their admin system's data to target repositories, and many carriers adopt a suite's data warehouse for this reason. However, if there are many non-suite data sources, this advantage is diluted. In these situations, carriers sometimes turn to partial implementation of the suite's warehouse solution, which is limited to ETL of suite transaction data to an intermediate repository.

Carriers who opt to build a data warehouse are frequently turning to cloud options. Leading cloud vendors offer all the components necessary to build a high-performing data environment with on-demand scalability for peak workloads. Carriers who follow this route find that they need to identify their technical use cases up front and conduct POCs to identify the most appropriate combination of solutions for their particular needs.

NOVARICA MARKET NAVIGATOR GRAPHIC

The Novarica Market Navigator Graphic provides an at-a-glance overview of major providers in a specific segment. It is intended to help insurers quickly understand who is active in the space and their approximately relative market positions. Each provider is shown in one of the following four categories:

- **Dominant Players** have strong market position and momentum. Their solutions in the segment are well-known.
- **Contenders** have substantial customer experience and momentum.
- **Established Providers** have generally been in the market longer and have substantial customer experience.
- **New Entrants** are emerging providers in this segment. This might include both new companies and established companies with newer solutions. These typically have limited existing customer bases.

Note that the categories refer specifically to this solution area. A company may be a Dominant Player in one segment, but a New Entrant in another based on the maturity of the solution and depth of market experience. Positioning on the graphic within each segment is alphabetical.

Also note that a provider's category does not imply a subjective judgment on solution quality, delivery, or fitness for any specific company's needs. Companies should carefully evaluate individual solutions relative to their specific needs, as well as consider the company's delivery capabilities and organizational bandwidth in addition to recent customer experience.

Figure 1: Market Position Data Warehouse Solutions for Property/Casualty Insurers 2020

Comparative Tables

These tables compare the solution providers in this report across a number of key differences. Table 1 below shows client deployment information (counts and deployment methods).

Table 2 shows the different data technologies and tools used by vendors to provide their full data technology stack.

Table 3 shows some of the emerging data technologies that are not yet common across all warehouse vendors. These include data streaming, use of big data/data lake technology, use of cloud massively parallel processing (MPP) data platforms, and integration with AI/ML tools.

Table 1: Solution Providers' Key Characteristics

Vendor	Deployment Method			Live North American Insurer Clients	Sample Key Differentiator Cited by Vendor
	On-prem	Private data center	Public cloud		
AdvantageGo	■	■	■	1	Historical intelligence, including full transactional history, with near real-time reporting
Centric	■		■	2	A focus on identifying targeted analytics with clear operational and overall strategic benefit
Cloverleaf Analytics	■	■	■	14	Built-in machine learning and big data functionality
Duck Creek	■	■	■	9	Low-code configuration that provides ease and speed of mapping and business rules management
Guidewire	■		■	64	Persona-based analytical applications that deliver actionable insight at the time key decisions are being made
Information Builders	■	■	■	2	Single vendor with a single platform and a single governance model to manage the data value chain
Insurity	■	■	■	40	A non-proprietary solution based on ACORD standards that reduces cost/ implementation time along with data access complexity
Majesco	■	■	■	14	Collaboration, user engagement, and geospatial capabilities to augment decision-making
Sapiens	■	■	■	44	Rapid installation with over 600 predefined P/C measures
Zensar	■	■	■	1	Self-service analytics with capabilities such as predictive analytics workbenches, KPI builder, and search-based visualization

Table 2: Solution Providers by Data Tools

Vendor	Visualization Tools Used		Data Governance and Dictionaries		Databases Supported			
	Commercial	Proprietary	Primary Function	Secondary Function	DB2/UDB	Oracle	Microsoft SQL Server	Other
AdvantageGo	■		■				■	
Centric	■		■				■	
Cloverleaf Analytics	■	■		■	■	■	■	■
Duck Creek	■		■				■	
Guidewire	■		■			■	■	
Information Builders	■	■	■		■	■	■	■
Insurity	■		■				■	
Majesco	■			■		■	■	
Sapiens	■		■		■	■	■	■
Zensar	■			■	■	■	■	■

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Table 3: Solution Providers by Advanced BI Tools

Vendor	Processing Method		Data Lake				Out-of-the-Box AI/Machine Learning Tools			Scalable, Cloud-based Massively Parallel Processing Solution
	Batch ETL	Real-time Streaming	Primary Function	Secondary Function	Third-Party Tool	None	Proprietary Tool	Third-Party Tool	None	
AdvantageGo	■					■			■	
Centric		■	■						■	■
Cloverleaf Analytics	■			■			■	■		■
Duck Creek	■					■		■		
Guidewire		■				■	■			
Information Builders		■			■				■	■
Insurity	■					■			■	
Majesco	■					■		■		
Sapiens		■		■				■		■
Zensar		■				■	■	■		■

INSURITY – DATAHOUSE

Executive Summary

- Insurity is a privately held company that provides cloud-based solutions and data analytics for large insurers, brokers, and MGAs. The company reports that it is trusted by 15 of the top 25 P/C carriers in the US and that it empowers clients to focus on their core businesses, optimize their operations, and deliver superior customer experiences.

- Insurity has headquarters in Hartford, CT and employs 800 people. The company's annual revenue is in the range of $100M-$250M.

- The company has 40 current US/Canadian insurer clients using its data warehouse solution. Clients are both large and small companies, most of which are using the solution to support commercial lines and some for personal lines.

- Publicly announced clients include Allstate, HAI, Chubb, Canopius, and Alaska National Insurance Company.

- Production clients are using the system to support all personal and commercial lines of business queried by Novarica.

- Implementation is available through Insurity's own resources or a partner.

- Deployment options include on-premise, hosted at a private data center, and hosted on MS Azure or AWS. The company offers a SaaS delivery model that includes hosting, license, maintenance and support, perpetual access to the latest version, and implementation of the upgrades.

- The company reports that average time to go live is 14-24 months and that the average implementation and licensing cost for the middle 50% of the client base is between $500K and $1M.

Solution Overview

DataHouse is a full-stack insurance data technology solution that includes integration schemas, data models, data warehouse, reporting, and analytics content. It incorporates five components: a data integration hub, data repositories, reporting, analytics, and a self-service console which includdes features such as manual data correction. Insurity reports that DataHouse integrates natively with Insurity core products; it can integrate (and has been integrated) with other vendor or homegrown applications.

The solution supports granular transactional details, summarized data, and bordereaux data. DataHouse provides operational reporting and analytics dashboards to support insurance business areas including underwriting, actuarial, compliance, accounting and finance, sales and marketing, as well as policy and claims operations.

DataHouse's data functions include tools to support data governance, dictionaries, quality, and validation; an insurance data model and databases that insurers are intended to use to replace existing EDW, ODS, and/or OLAP cubes; a presentation/reporting component; standard predefined reports and predefined insurance dashboards; an ad hoc reporting tool; and data mining and analytics tools. The solution supports data movement via batch ETL.

The solution does not currently incorporate a data lake but can integrate with one to support schema on read or unstructured data, nor does it leverage a scalable cloud-based MPP solution such as AWS Redshift, Google BigQuery, or Azure SQL Data Warehouse. However, Insurity reports that these items are on its product roadmap for 2020.

Client Base

Globally, Insurity has 45 clients on DataHouse, 40 of which are insurer clients (not MGAs, self-insureds, etc.) live in the US and Canada. Clients are a mix of large and small companies that use the solution to support mostly commercial lines with some personal. Publicly announced clients include HAI, Chubb, Canopius, and Alaska National Insurance Company.

Production clients are using the system to support the following lines of business: personal auto, homeowners, personal umbrella, dwelling fire, personal package, commercial property, general liability, BOP, commercial crime, commercial auto, E&O/D&O, inland marine, professional liability (including medical malpractice), commercial package, specialty, workers' comp, surety, as well as other personal (mobile homeowners, farm) and other commercial lines (E&S, capital assets, commercial output).

Solution Architecture and History

The solution launched in 2007 and was re-architected in 2012 and 2018. The latest release was in September 2019. Insurity notes that the application is continually updated with both small and substantial upgrades; it does not do major/minor releases for DataHouse. The company reports that 90% of the solution's customers are on the latest version and that all of them have been through at least one upgrade.

Microsoft SQL Server databases are supported, as well as Windows server platforms. The solution is written in .NET, C#, VB.NET, and T-SQL. It is browser-based for all user interface functions and offers some mobile capabilities.

Deployment Options

Insurity offers on-premise, hosted at a private data center, and hosted on MS Azure or AWS deployment options. The company offers a SaaS delivery model that includes hosting, license, maintenance and support, perpetual access to the latest version, and implementation of the upgrades.

The hosted solution is a single-tenant app server and database. The company notes that DataHouse supports multi-tenant capability, but it does not currently offer a multi-tenant SaaS option for the DataHouse product.

Average Implementation Length and Cost

Insurity implements the solution through its own resources or a partner. It reports that DataHouse can be ready for initial go-live in 14-24 months and fully rolled out in an additional 90 days or less. The company reports that the average implementation and licensing cost for the middle 50% of the client base is between $500K and $1M.

Support

Of the 800 people employed at Insurity, there are approximately 10 on the product design and engineering team, between 10 and 50 on the implementation team (not counting partnerships), and between 10 and 50 on the support team, including an expert pool to assist partner efforts.

The company reports that its resources for DataHouse are located in Hartford, CT.

Insurity offers customer engagement activities such as an online community, online training, a customer advisory committee, a user event, and training seminars.

Partnerships

Publicly announced partnerships include LexisNexis (third-party bulk data), ISO/Verisk (ISO submissions), West Monroe (system integrator), and LTI (system integrator).
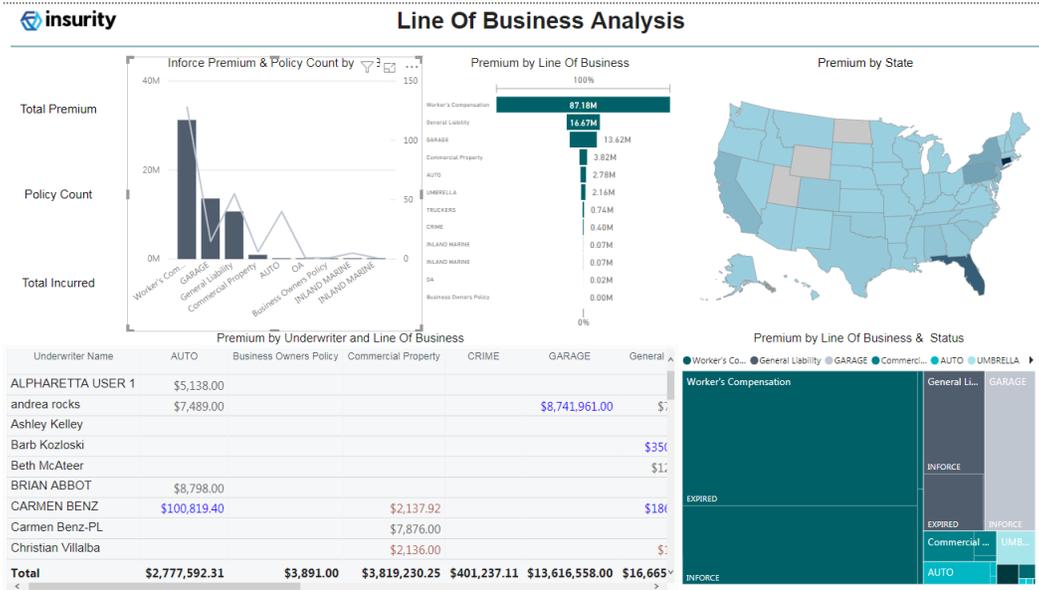
Key Functions and Differentiators

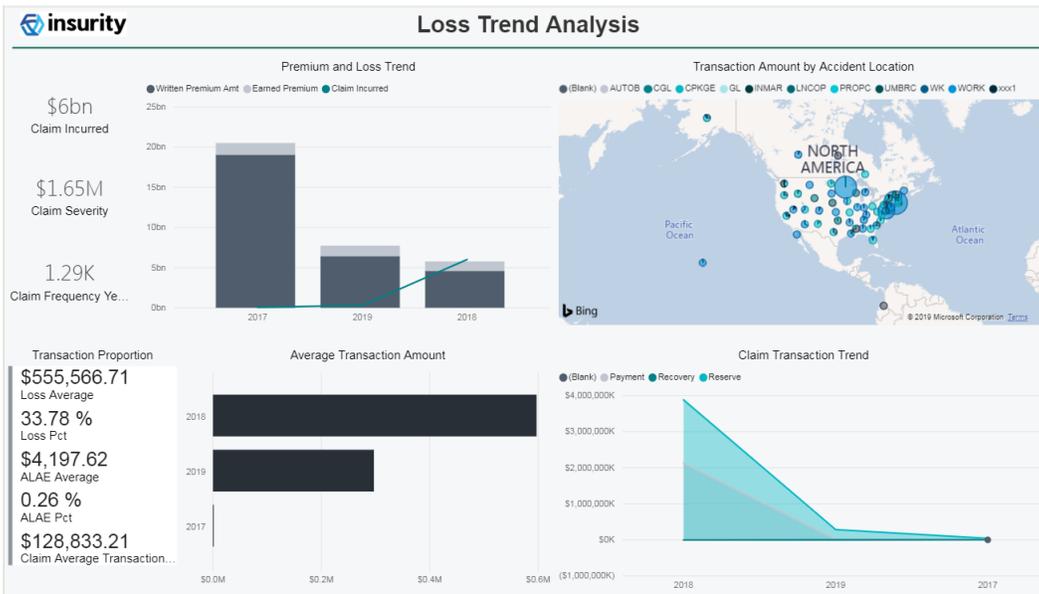Insurity cites the key functions of DataHouse as:

- ACORD-based data model and integration support for policy, billing, claims, and reinsurance with support 16,000+ data attributes, 30 P/C LOBs, OOTB reports and PowerBI dashboards
- Access to data through data services including ad hoc reporting capabilities through Insurity's insurance-specific data marts (i.e., underwriting, actuarial)
- Regulatory and bureau reporting capabilities with out-of-the-box ISO, NCCI, AAIS, and a subset of Yellow Book schedules
- Configurable insurance functions, including calculating earnings across the enterprise using a base calculation option (e.g., pro rata, Rule of 24) or a client-specified formula
- The ability to extend data models to incorporate any client-specific attributes through a web-based configuration console that also supports business rules and error handling

The company cites as key differentiators its flexible integration capabilities designed to exchange real-time data bi-directionally with any policy, billing, claims, reinsurance, or general ledger application via ACORD standards or custom structure; a set of integrated, standards-based (ACORD), non-proprietary data repositories that support detailed transaction data with 16,000+ attributes, 30+ LOBs for commercial, personal, and specialty insurance, and hundreds of APIs out of the box for data access along with data marts; a non-proprietary solution based on ACORD standards that reduces cost and implementation time along with data access complexity for reporting and analytics end users; data-level security with custom perspectives enabling carriers to allow underwriters and agencies to create their own reports; and a client extension framework that allows customers to extend the integration and data models along with repositories, reports, as well as analytics KPIs and dashboards without compromising their ability to benefit from new DataHouse enhancements and releases.
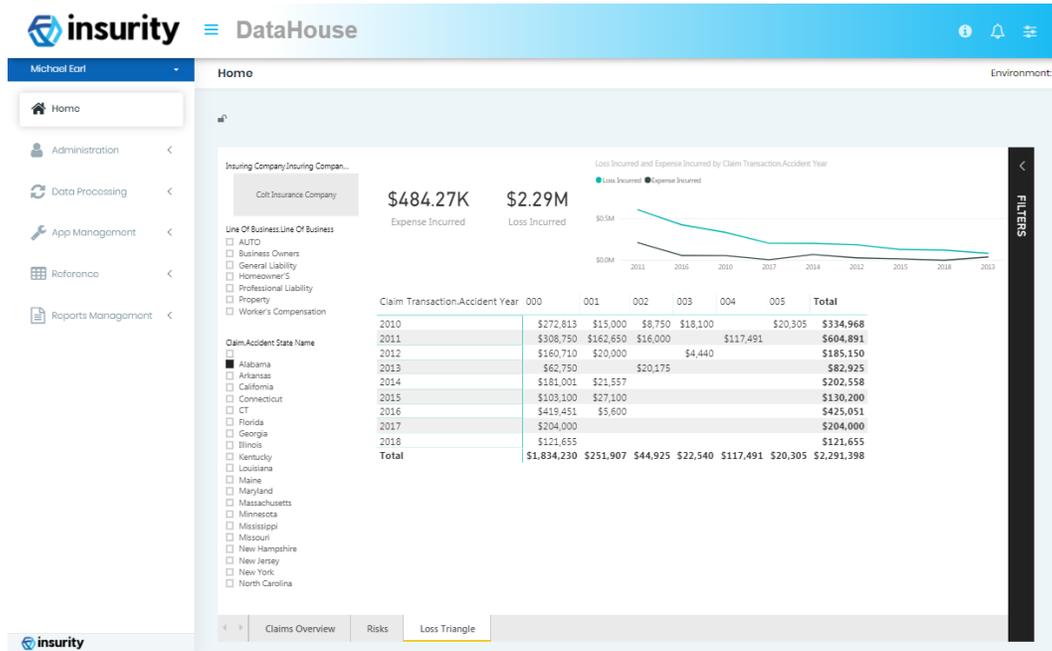
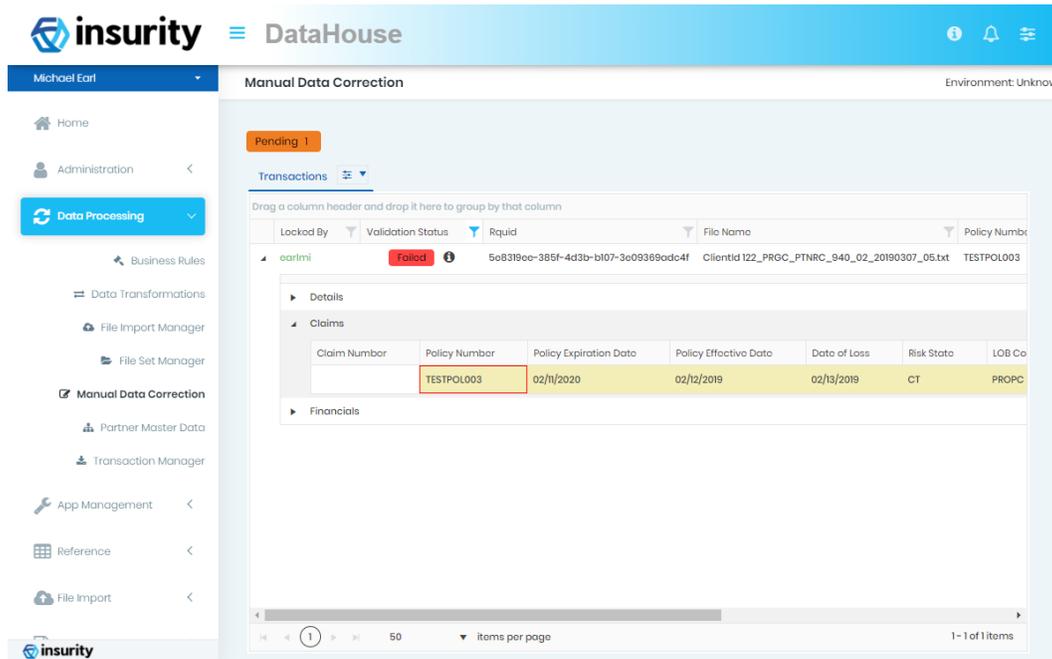## Screenshots

Line of Business Analysis

Loss Trend Analysis

Dashboard

Manual Data Correction

CONCLUSIONS

Insurers now have a maturing vendor market to select from when considering providers of data warehouse solutions. The primary approach for an insurance EDW is "build," with insurers working with a variety of platforms and tools to build out their data capabilities. As the space has matured, it is also now possible to select one of the vendors profiled in this report for a full insurance data technology stack that includes the data layer, the industry-specific data models, the presentation and visualization tools, and the pre-built insurance reports and dashboards.

Whether an insurer chooses to build or buy, a major data initiative will eventually touch all aspects of an organization. Even a purchased suite needs to be tailored to—and integrated into—the rest of the insurer's environment. Some policy administration system vendors are either pre-integrating with or releasing their own data warehouse suites. This does simplify the deployment, but it adds another variable to the "suite vs. best-of-breed" decision. Until these options have more production exposure, most insurers are still opting for best-of-breed.

Some data warehouse solution providers have expanded their features to include collaboration and data governance tools, along with improvements to user interface and data visualization tools. In addition, more solutions are being deployed in the cloud and partnering with third-party data sources. Some vendors have begun to leverage emerging data technology areas such as data streaming, big data/data lake technology, cloud massively parallel processing (MPP) data platforms, or integration with AI/ML. However, no matter what advanced capabilities are available or what approach an insurer takes, it is a near-universal condition that there will be siloes of historical data that need to be considered or migrated into the new data warehouse solution—and that will take time and effort.

Despite a plethora of vendor options and the general acknowledgement across the industry that good data management is key to ongoing success, why aren't more insurers further along in their data strategy?

1. Most insurers struggle with multiple legacy systems and siloes of disparate data, and they are still at the first steps of bringing that data together.
2. The data that does exist in the organization is of variable quality or completeness. New systems don't immediately solve that problem without a broader plan in place.
3. Insurers and core systems have traditionally looked at data from a policy view, complicating the effort to move to new models that tend to take a 360-degree customer view.
4. Many insurers still have no formal data governance in place and lack organizational agreement on data definitions.

A good vendor partner can help put the framework and some tools in place to solve the above four roadblocks, but it requires more than just technology. It requires process and cultural change across the organization, and it requires dedicated time from stakeholders in different areas of the organization. A data technology transformation can't be driven solely by IT.

Many insurers are still looking for a data champion to help push a strategy across the organization and get buy-in from other business leaders. As organizations mature, this data champion role is often formalized as a chief data officer (CDO), and that person typically has a strong data background. But for insurers who are still looking to get a data strategy off the ground, it's most important to find a leader who is respected in the organization and who is passionate about the value that good data management can bring, even if they have little data experience themselves.

We recommend that insurers who are looking for a partner narrow the overall market to a short list of three or four by focusing on four main areas: **s**taff, **o**rganization, **f**unctionality, and **t**echnology, easily remembered by the acronym **SOFT.**

- *Staff*
    - Does the vendor's staff have the right skills and experience?
    - How likely are they to understand your needs well?
    - What resources are available for implementation and support?
    - What assurances will you have that the staff you meet during the sales process will really be the staff that you work with?

- *Organization*
    - How stable is the organization?
    - Is it big enough for your company to do business with?
    - Who are their other clients?
    - How focused are they on the insurance industry?

- *Functionality*
    - Do the solution and services support your needs for modeling services, lines of business, states, and model maintenance?
    - Which solutions and services are live at reference clients?

- *Technology*
    - Is the solution's technical architecture compatible with your enterprise standards (or can you build your enterprise standards around the solution's technical architecture)?
    - Does your IT staff have the skills to support it?

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

NEXT STEPS AND RELATED RESEARCH

- Contact Novarica at client-support@novarica.com to set up a conversation to discuss this topic.
- Read related reports:
  - *Data Governance in Insurance: Overview and Best Practices*
  - *Data and Analytics in Insurance: Building the Business Case*
  - *MDM in Insurance: Expansion and Key Issues*
  - *Data Strategy for Insurers: Key Issues and Best Practices*
  - *Third-Party Data in Insurance: Overview and Prominent Providers*
  - *AI-Enabled Data and Analytics in P/C Underwriting: Overview and Prominent Providers*

ABOUT NOVARICA

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

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

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

We publish frequent, independent, in-depth research on trends, best practices, and vendors. Our research projects are directed by our senior team and leverage our relationships with the more than 300 insurer CIO members of our Research Council. We conduct more than 2,000 conversations with insurer executives every year.

Our retained advisory services provide enterprise access to our research, unlimited phone and email consultations with our team, facilitated 1-on-1 conversations with other CIOs in our network, an annual trends and best practices workshop, and an optional annual IT strategy review.

Our consulting services include assessments, strategic blueprints and roadmaps, benchmarking, business process visioning, and vendor evaluation across digital, data/analytics, core systems, operating model, and innovation.

Our special programs include our Silicon Valley Innovation Tour, InsureTech Summits, Executive Leadership Development with Brown University, an online learning course in Foundations of Insurance Technology Strategy, and more.

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