

THE BIG BOOK OF

Generative AI insurance use cases

WRITER



Intro

Insurance has historically been stuck in a digital transformation rut — it's often one of the last industries to embrace emerging technologies. But enterprise-grade generative AI solutions have the potential to change the insurance industry's reputation for lagging behind. With generative AI technology like large language models (LLMs), insurance companies are re-imagining how they underwrite, sell, and service complex products.

Generative AI can efficiently collect and distill large amounts of data, allowing for improved decision-making on traditionally complicated products like life and disability insurance and annuities.

LLMs help consumers, agents, and customer service representatives by answering complex questions, assisting, and managing conversations. They also reduce underwriting time and cost, reduce risk, and improve customer satisfaction. In short, generative AI is set to bring powerful benefits to the insurance industry.

“Generative AI presents insurers with an exceptional opportunity to reinvent themselves and deliver enhanced value to customers, shareholders and society in a holistic manner. It’s no overstatement to say that its long-term impact will be transformative, and the immediate-term effects can be profound.”

Ernst & Young¹

¹Future of generative AI in property and casualty claims | EY - US

The first step in realizing such transformational benefits is identifying high-value use cases that'll have the quickest, largest impact on your company. That's what this guide is for.

Welcome to the **Big Book of Generative AI Insurance Use Cases.**

This is your go-to place for learning how to use AI for insurance and the advantages you can gain from doing so. It's a guide to help get the ball rolling on your AI-related initiatives and to figure out the right requirements for a successful AI platform. We also provide tips to help you dodge any bumps along the road.

And since it's based on real-world experiences from folks who have accelerated their insurance company with AI, you'll get the straight scoop.

How to get the most out of this guide

We organized this guide in modules by team function. You'll find sections for **marketing, underwriting, claims management, and support.**

We then divide the functions by different use cases — exploring how you can use generative AI to create, analyze, and govern data and content. So you can, for example, see exactly how an underwriter could use a platform like Writer to summarize policies.

Table of contents

7 A quick word on generative AI, Writer, and ChatGPT

9 Three big ideas for AI in insurance

11 Here are highlights of the use cases we'll explore

12 **Marketing**

16 **Underwriting**

21 **Claims management**

25 **Support**

30 Functional requirements

31 Case study

A quick word on generative AI, Writer, and ChatGPT

Generative AI is a broad term that encompasses a variety of different technologies and techniques, such as deep learning and natural language processing (NLP). These tools can be used to generate new images, sounds, text, or even entire websites.

In this guide, you'll learn about content creation, analysis, and compliance use cases, like those supported by our full-stack generative AI platform, Writer. You'll see the different types of AI capabilities that are possible, as well as how to best implement those use cases using Writer.

Note that Writer isn't just a ChatGPT alternative. While ChatGPT is built on an OpenAI large language model (LLM) and trained with public data, Writer is built on our own family of LLMs (Palmyra) and trained with datasets curated for industry-specific use. Writer also provides a full-stack solution — with applications, AI guardrails, and capabilities to integrate to your data sources.

While ChatGPT is designed for individual natural language conversations, Writer combines LLMs, NLP, and machine learning (ML) with your brand and knowledge to build AI into all your business processes.

Writer delivers high-quality outputs and insights, and automatically enforces your AI guardrails so work is compliant, accurate, inclusive, and on-brand. We have an application layer of chat interfaces, prebuilt templates, and composable UI options that makes it easy to quickly embed generative AI into any business process

It's the whole kit and caboodle — everything you need to help all of the people across your organization create great work, get answers in seconds, and enforce guardrails — available right in their tools they normally use to get work done. And generative AI technology powers it all.

Three big ideas for AI in insurance

At the heart of our enterprise AI platform is a desire to create a product that your people will love, guided by three core principles: a focus on people, support for your brand, and business-readiness for the insurance industry.



A focus on people

Our goal is to provide your people with an intuitive, straightforward, and simple-to-use experience, right where they work. We strive to support their work and boost their productivity with a variety of powerful use cases encompassing all areas of the insurance sector, ranging from policy management to risk analysis to compliance. In addition to prebuilt templates that span a wide range of popular business use cases, you can use composable UI options to create custom templates highly tailored to your industry- or company-specific use cases.

**Support for your brand**

We understand the needs of insurance companies when it comes to building a brand. Writer automatically enforces your AI guardrails so work is compliant, accurate, inclusive, and on-brand, whether it's created by your people or AI. Our platform learns from your content, key terms, legal and regulatory rules, company facts, and policy specifics to create an experience that's consistent, trustworthy, and reflective of your brand. We want to empower you to extend your brand for an integrated, reliable, and personalized customer experience that meets the demands of the insurance industry.

**Business readiness**

We built Writer to be insurance-industry ready. We architected our platform with privacy and security in mind — we don't use your data to train our models, and we adhere to sector-specific security best practices and compliance standards, such as SOC 2 Type II, PCI, and HIPAA. We also make it easy to onboard the right people, administer centrally, and track the key adoption and success metrics unique to insurance firms. And since insurance is a regulated industry with strict security and privacy requirements, we also provide insurance companies with the maximum flexibility when it comes to deploying the generative AI solutions — Writer provides multi-tenant or single-tenant hosting services for customers. Customers can also choose to host the Writer-built Palmyra LLMs themselves.

Here are highlights of the use cases we'll explore



MARKETING

Create

Write copy for an integrated ad campaign for our homeowner's insurance product, tailored to this customer profile.

Analyze

Analyze customer data to identify potential new markets for life insurance products based on customer age, gender, location, income, etc.

Govern

Identify any potential legal, regulatory, and brand compliance issues in marketing materials before they're published.



UNDERWRITING

Write a report outlining the risk factors associated with a long-term disability insurance policy for a 40-year-old male with a family history of chronic illness.

Compare the average claims cost for renters insurance policies across different zip codes and age groups.

Review existing life insurance policies and alert underwriters to any potential compliance issues.



CLAIMS MANAGEMENT

Generate detailed descriptions of property damage using images and text descriptions from a claims adjuster.

Summarize the key details from a member's claim dispute call recording.

Scan claims documents for any discrepancies in coverage or claims history.



SUPPORT

Create an interactive knowledge base to help agents quickly access relevant information.

Identify the most common customer inquiries related to auto insurance coverage.

Detect potential regulatory non-compliance in customer support conversations.

Marketing use cases

“Be creative and highly personalized, but be sure to stick to the rules” — that’s the mantra for insurance marketing teams. Insurance marketing has unique challenges due to the highly regulated nature of the industry and the need to be compliant with a variety of laws and regulations.

Generative AI can help to make this process smoother by automating certain tasks like content creation as well as providing more accurate customer segmentation and better targeting of customer profiles.



The key capabilities of generative AI for insurance marketing

Create

Insurance marketing teams have to perform the balancing act of creating content that follows strict compliance rules but also appeals to their target audience. Plus, editing complex content to fit individual needs can take up a lot of time and resources from high-value projects. Generative AI offers insurance marketing teams a smarter, faster way to create and edit content. For example, generative AI can easily repurpose and transform core messaging to make it relevant to different insurance product lines — turning a full day of repetitive work into a matter of minutes.

Analyze

Insurance marketing teams must analyze vast amounts of data to increase efficiency and make informed decisions. Generative AI can help alleviate this burden by providing powerful insights and identifying new opportunities. AI-driven tools can be used to uncover trends in customer behavior and marketing performance to guide future strategies.

Govern

Insurance marketing teams are under immense pressure to stay compliant with a constantly changing landscape of legal, regulatory, and brand requirements. Keeping up with it all is a daunting task.

For example, generative AI can quickly detect and flag non-compliant content, reducing the time spent on manual review and helping teams stay ahead of any potential compliance issues. Generative AI empowers insurance marketing teams to govern with confidence.

Type	Example
Create	Write copy for an integrated ad campaign for our homeowner's insurance product, tailored to this customer profile.
Analyze	Analyze customer data to identify potential new markets for life insurance products based on customer age, gender, location, income, etc.
Govern	Identify any potential legal, regulatory, and brand compliance issues in marketing materials before they're published.

Underwriting use cases

There's no understating the complexity behind insurance underwriting. Underwriters must develop precise pricing strategies while accurately assessing risks and deeply understanding customer needs. Historically, underwriters have been bogged down by manual processes that are prone to errors — it takes their time away from delivering valuable customer experiences. Generative AI can help underwriters conquer these challenges by automating each stage of risk assessment and delivering accurate information to them the moment they need it. The result: better-informed decision-making, and more time to spend with customers.



The key capabilities of generative AI for insurance underwriting

Create

There's no insurance underwriting without writing. From policy documents and risk assessment reports to reinsurance agreements, clear, accurate writing is essential to the function of an underwriting team. But creating reports, contracts, and policy documents in an insurance underwriting context is time- and labor-intensive. It requires in-depth research and analysis, the selection and use of appropriate language, and the review and verification of information. It's also a complex process that involves understanding insurance policies, regulations, and legal requirements.

With generative AI, insurance underwriting teams can quickly create, repurpose, and edit content to meet their specific needs. For instance, a full-stack generative AI platform can help create policy documents by automatically analyzing and extracting important information from existing policy documents and creating new policy documents with the latest information.

AI can also help generate policy documents and risk assessments with specific, consistent requirements in terms of information, format, and specifications. With custom templates to define the input and output criteria, underwriters can create bespoke documents at scale.

Analyze

From reviewing applicant information to risk assessment, data analysis is at the heart of the insurance underwriter's role. Insurance underwriting teams are required to analyze and interpret data meticulously to make informed decisions. This can be a tedious and time-consuming process that can lead to costly mistakes.

Generative AI helps take the guesswork out of analyzing and interpreting data for insurance underwriting teams. For instance, AI-powered natural language processing can quickly read through hundreds or thousands of detailed insurance documents, extract relevant policy details, and summarize the results in an easy-to-understand format. AI can also help underwriters identify potential risks and flag any irregularities so that they can make informed decisions.

Govern

Insurance underwriting teams are tasked with navigating complex and ever-changing regulations, making it difficult to guarantee compliance and avoid costly penalties.

Generative AI can help insurance underwriting teams stay on top of the latest regulations and identify potential compliance issues in real-time. For example, generative AI can automatically detect changes in customer information that may lead to compliance violations by making sure customer information is accurate and up-to-date.

“While traditional ML models have helped dramatically improve more standardized underwriting processes like home and auto, LLMs could potentially help with the more complex group (commercial and life) by gathering data to help underwriters make better decisions, especially in more intricate cases like large commercial policies where more context and follow-up questions are required.”

Andreessen Horowitz²

²[Generative AI is Coming for Insurance \(May 2023 Fintech Newsletter\) | Andreessen Horowitz](#)

Type	Example
Create	Write a report outlining the risk factors associated with a long-term disability insurance policy for a 40-year-old male with a family history of chronic illness.
Analyze	Compare the average claims cost for renters insurance policies across different zip codes and age groups.
Govern	Review existing life insurance policies and alert the underwriters to any potential compliance issues.

Claims management use cases

Insurance claims management teams must maintain the careful balancing act of processing large volumes of claims quickly with communicating decisions to customers clearly. Generative AI can help by automating the tedious and complex tasks associated with claims processing, such as data entry and document review, as well as providing insights and recommendations for more efficient processes. Additionally, AI can be used to detect fraud and errors, allowing teams to spend more time on complex tasks that require human judgment.



The key capabilities of generative AI for claims management

Create

From claims denial letters to payment authorization documents, creating communications for insurance claims management teams can be tedious and time consuming, often requiring hours of time and lots of back and forth between different internal teams. Generative AI can streamline this process by automatically generating content and reports that are tailored to the specific needs of insurance claims management teams, making it quicker and easier to create accurate and up-to-date materials. For example, generative AI can automate the process of compiling evidence and analyzing witness statements to generate comprehensive claims investigation reports. With multimodal inputs, claims teams can also generate damage assessments based on images or other visual data.

Plus, generative AI can speed up and standardize customer communications about claims. A claims team can automatically generate emails and text messages for customers, quickly and accurately providing the latest information about their claims.

Analyze

Insurance claims management teams need to quickly and accurately process claims to provide timely payments and services to customers.

Generative AI solutions can help automate the claims processing process by analyzing data points such as policyholder information, medical records, and other documents to make more accurate decisions about payments and services.

AI can help claims teams by:

- Analyzing claim data and policy details to determine the appropriate response to a claim
- Identifying market trends
- Examining past insurance claim data to predict future claim outcomes
- Investigating patterns in claims data to detect potential fraudulent activities
- Summarizing claims documentation for smoother state regulatory audits

By recognizing irregularities or suspicious behavior, insurance companies can use AI to mitigate losses and enhance fraud prevention efforts.

Govern

Insurance claims management teams must adhere to various regulations, such as those set by the Federal Insurance Office (FIO) and other government regulatory bodies.

Generative AI can be used to automate compliance checks, detect violations, and identify potential risks. AI-driven models can be used to analyze regulatory documents, such as insurance contracts, and identify any discrepancies between them and the actual practice of claims management.

“While we believe this powerful technology (generative AI) offers huge potential across the entire insurance value chain, claims functions are a likely starting point where return on investments can be significant and achieved with speed.”

Ernst & Young³

Type	Example
Create	Generate detailed descriptions of property damage using images and text descriptions from a claims adjuster.
Analyze	Summarize the key details from a member’s claim dispute call recording.
Govern	Scan claims documents for any discrepancies in coverage or claims history.

³[Unleashing the potential of generative AI: a game-changer for P&C insurance claims](#)

Support use cases

Insurance customer support teams often find themselves buried under a mountain of inquiries — answering all of them in a timely manner can feel like trying to stay ahead of an avalanche. Generative AI solutions can automate customer service processes, such as answering routine questions, freeing up customer service staff to focus on more complex issues. Plus, AI-powered chatbots can provide 24/7 customer service, helping to create a better customer experience.



The key capabilities of generative AI for insurance customer support teams

Create

Creating and repurposing content for insurance customer support teams can be a challenging task given the breadth of topics they need to handle — from customer inquiries to insurance regulations and product features. Without the right tools, teams can have a hard time quickly and accurately creating content to answer customer queries.

Generative AI can help teams whip up content tailored to each customer's needs fast. Plus, AI solutions can be used to repurpose existing content, so teams can quickly create new materials based on what they already have.

Analyze

Insurance customer support teams face a difficult task when it comes to examining large volumes of complex data. They must quickly and accurately assess customer information, product features, and policy details. Additionally, customer support teams need to identify patterns and trends in the data to provide effective customer service.

Generative AI solutions can help support teams tackle these challenges by giving them deep insights into customer data. AI-driven solutions can analyze customer data and spot patterns, trends, and correlations that might be hard to detect.

Govern

Customer support teams face special challenges when it comes to governance and regulation. They have to follow complex and ever-changing regulations, standards, and policies. Customer interactions also have to match the company's brand guidelines and messaging. This requires support teams to be constantly updated on the latest regulations and customer expectations. This can be difficult to maintain.

Generative AI automates the process of adhering to regulations and maintaining brand consistency. This allows support teams to provide accurate and consistent answers to customer inquiries without having to manually search for and apply relevant regulations and brand messaging.

“The use of generative AI in customer service and support is not limited to virtual agents. It has many other applications, including the ability to generate content, provide content utility functions, such as text summarization, formatting and translations, and other special purpose use cases, such as agent assistance or case summarization.”

Gartner⁴

⁴[Customer Service and Support Leaders Should Assess Generative AI Technology Options to Enhance Their Organization's Function](#)

Type	Example
Create	Create an interactive knowledge base to help agents quickly access relevant information.
	Generate content to explain the implications of the latest regulatory changes.
Analyze	Generate a summary of the key takeaways from the customer call.
	Identify the most common customer inquiries related to auto insurance coverage.
Govern	Detect potential regulatory non-compliance in customer support conversations.

Functional requirements

With the right tools in place, all of these business-transforming use cases are possible. Here are the capabilities your generative AI software should have:

- Knows your products
- Adheres to your legal and regulatory rules
- Speaks in your brand voice
- Writes in your style
- Integrates easily into existing workflows
- Understands relevant data formats
- Detects claims and checks facts
- Protects everyone's data (yours and your customers')
- Meets the compliance needs of secure organizations

Discover how Writer checks all the boxes for insurance companies.



[Request a demo](#)

How a top life insurance company uses Writer to accelerate compliant content

The content design team and help center at one of the largest life insurance companies in the US faced a challenge that many companies experience: needing to produce content that adheres to brand messaging and compliance requirements, but in a timely and efficient manner.

To solve this problem, they worked with Writer to implement a style guide to ensure their teams spoke in the same voice, tone, and used the correct terminology. Although the style guide was successful in helping the content and help center teams produce content quickly, every draft still had to go through a lengthy legal review process.

To save even more time, the team began using generative AI features in the Writer platform to produce derivative content from existing pieces that had already passed legal review.

After implementing this solution, the content design and help center teams could produce content quickly and efficiently, while also making sure they hit brand messaging and compliance requirements.

WRITER



About Writer

Writer is the full-stack generative AI platform for enterprises. We empower your entire organization to accelerate growth, increase productivity, and ensure compliance.

Writer transforms work by delivering high-quality outputs that are accurate, compliant, and on-brand. Our platform consists of Writer-built LLMs, a Knowledge Graph that connects our models to your internal data sources, AI guardrails to enforce your rules, a flexible application layer, and an ecosystem of robust APIs and integrations. Our enterprise-grade platform doesn't use your data in model training and complies with SOC 2 Type II, HIPAA, PCI, GDPR, and Privacy Shield.

Leading enterprises choose Writer, including Vanguard, Intuit, L'Oreal, Accenture, and Spotify.