Custom Insurance Software Development: Trends, Challenges, and Solutions

✓ No Vendor Lock-in   ✓ Unlimited Users   ✓ Unlimited Customizability

Contents

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Insurance Market 2026 Overview

The insurance industry is undergoing a rapid digital transformation, driven by rising customer expectations and the need for greater efficiency. Insurers across developed markets – from the United States and Europe to tech-forward Asian hubs like Singapore – are investing heavily in **"insurtech"** innovation. Global spending on insurance technology and software is soaring: for example, the **insurance software market** (core systems and related applications) **was valued at $43.24 billion in 2024 and is projected to reach nearly $59.6 billion by 2033**.

The digital-first insurtech segment in particular is growing at an explosive pace – from **$15.6 billion in 2024 to over $96 billion by 2032 (a 26% CAGR)**. Insurers are also dedicating significant budget to IT overall; in fact, the industry is forecast to spend roughly **$291 billion on IT in the coming year, with about 31% of that on software alone (nearly $90 billion)**.

This surge in technology investment signals that digital capabilities are now essential, not optional, for insurance carriers to stay competitive.
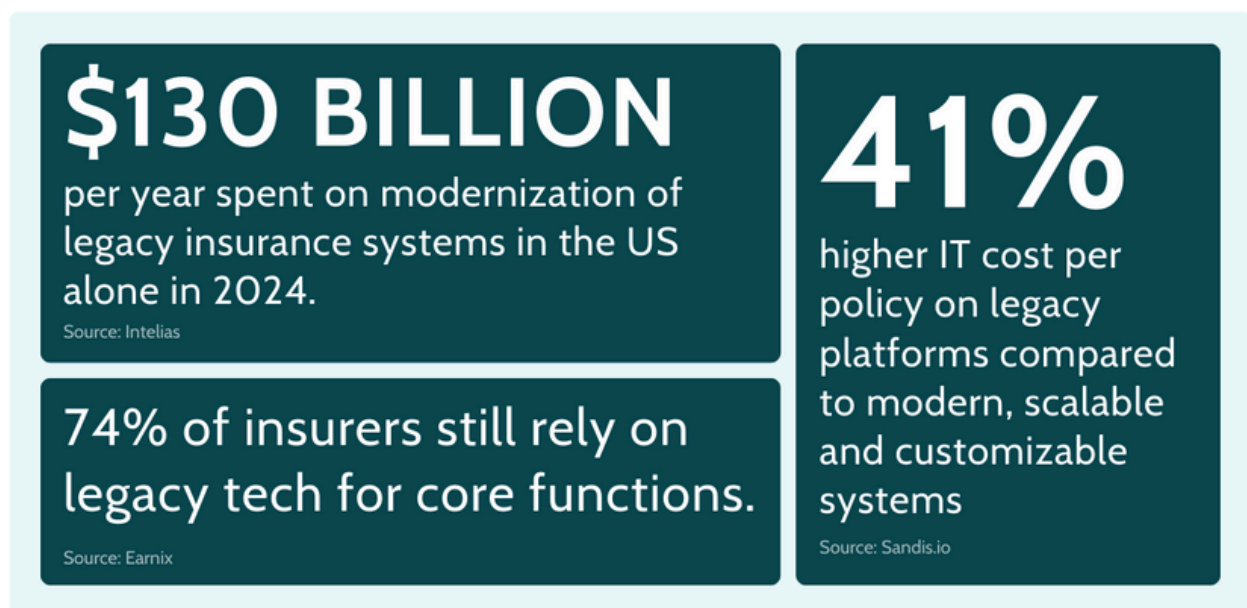
Several trends are propelling this wave of tech adoption. Consumers today demand convenient online services and personalized experiences, putting pressure on insurers to replace slow, paper-based processes with modern software solutions. At the same time, advanced technologies promise major efficiency gains – for instance, artificial intelligence (AI) and automation can dramatically speed up underwriting and claims. According to industry research, **AI technologies could add up to $1.1 trillion in annual value to the global insurance sector by improving pricing, underwriting, customer service, and more**. n fact, analysts estimate AI will save insurers hundreds of billions and generate well over a trillion dollars in economic value in the coming decade.

It's no surprise that 84% of insurance executives believe AI will transform the industry in the next few years. In short, insurers are embracing custom software development and innovative platforms to modernize every facet of their business – from policy administration and claims handling to analytics – in order to improve agility, reduce costs, and better serve customers.

Below, we explore the key types of insurance software solutions that carriers, managing general agents (MGAs), and brokers are deploying. We then discuss the core challenges in developing custom insurance software. Finally, we consider how the Openkoda core insurance platform can help address these challenges and accelerate software innovation.

Key Software Solutions for Modern Insurance Businesses

While insurance businesses can differ significantly in size, geography, product focus, and distribution models, they all operate within the same core industry framework. Whether it's a global carrier, a niche insurer, or a fast-growing insurtech, the fundamentals remain largely the same: policies must be issued and managed, claims must be processed fairly and efficiently, risks must be assessed, and regulatory requirements must be met. These shared responsibilities mean that, despite their differences, insurers rely on a common set of software systems to run their operations effectively. The following sections outline the key software solutions that form the backbone of modern insurance businesses, enabling consistency, compliance, and scalability across the entire insurance value chain.

## Policy Management Software (Policy Administration Systems)

What it is

Policy management software – often called a Policy Administration System (PAS) – **is the digital backbone of an insurer's operations**. It manages the entire lifecycle of insurance policies, from initial quotes and underwriting all the way through issuance, endorsements (policy changes), renewals, and cancellations.

In essence, a PAS serves as the central system of record for all policy data and transactions, providing a single source of truth accessible across departments (underwriting, servicing, billing, claims, etc.).

Best policy management software platforms automate many manual tasks, ensure compliance with regulations, and integrate with other systems to streamline workflows. This software is used not only by insurance carriers themselves, but also by MGAs, brokers, and any intermediaries who issue or service policies on a carrier's behalf.

Main Purpose

A policy administration system's primary purpose is to **efficiently handle every step required to sell and maintain insurance coverage**. By digitizing and automating processes that were historically done via paper or legacy mainframes, a PAS increases accuracy and speed. It allows insurers to operate at scale – handling high volumes of policies and transactions – while reducing errors and administrative effort. Importantly, policy management software enforces underwriting rules and coverage terms, helping ensure that policies are issued correctly and comply with internal guidelines and insurance regulations. These systems also improve customer service: with a centralized PAS, an agent or customer-service rep can quickly retrieve up-to-date policy information, process changes, or answer customer inquiries in one place.
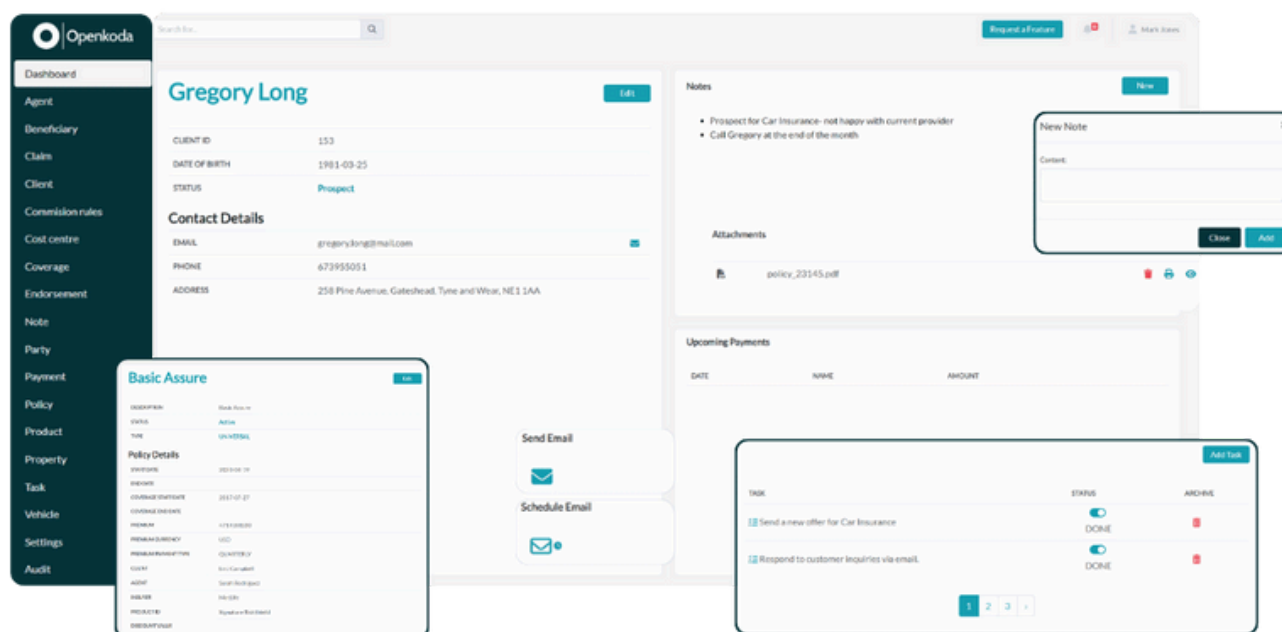
Key Features

Modern policy management/PAS solutions typically include a rich set of features to cover all core insurance policy processes:

- **End-to-End Policy Lifecycle Management:** Handling the full policy journey – from capturing prospect data for quotes and underwriting, to issuing new policies, processing mid-term changes (endorsements), and managing renewals and cancellations. All policy data is stored centrally, so any update (e.g. an address change or coverage modification) automatically propagates through the system, maintaining consistency across documents and records. This ensures that at any point, users see the current, accurate policy details.
- **Quoting and Underwriting Integration:** Supporting the initial rating and underwriting process by capturing application details, applying rating engines and underwriting rules, and generating quotes/proposals

- **Policy Issuance and Servicing:** Once a policy is bound (the customer agrees to purchase), the system issues formal policy documents/contracts and stores them. Throughout the policy term, users can process adjustments (endorsements) such as adding a coverage, changing insured items, or updating personal details, with the system recalculating premiums as needed.
- **Billing and Payment Management:** Integration with premium billing and accounts receivable functions. The software calculates premiums and facilitates payment scheduling (installments, down payments, etc.), issuing invoices or electronic bills.
- **Claims Integration:** While detailed claims handling is typically done in a separate claims management system, a PAS provides the necessary hooks to feed and retrieve data from the claims process. It will supply coverage information to the claims system to verify if a loss is covered and what limits/deductibles apply.
- **Regulatory Compliance and Audit Trails:** Given insurance is heavily regulated, policy admin software has built-in compliance features. It enforces regulatory rules and company underwriting guidelines (e.g. ensuring policy documents include required clauses, or that rates used are approved).
- **Document Management:** Automatic generation and storage of all policy-related documents (quotes, policy contracts, endorsement endorsements, renewal notices, cancellation notices, certificates of insurance, etc.).
- **Integration and Configurability:** Modern policy administration systems are designed to integrate with a broader insurance IT ecosystem – connecting to CRM systems, portals, rating/underwriting engines, third-party data sources (like credit bureaus or IoT telematics), and more

Claims Management Software

What it is

Claims management software is designed to streamline and automate the end-to-end process of insurance claims – from the moment a loss is reported (First Notice of Loss) through investigation, adjudication, and final settlement. Handling claims efficiently is vitally important for insurers, as claims processing directly impacts customer satisfaction and an insurer's loss costs. Traditional claims handling often involves manual workflows, paper files, and siloed systems that slow things down. Modern claims management software address these pain points by providing a centralized system where adjusters and claims managers can intake claims, evaluate coverage, assign tasks, track progress, and issue payments, all with greater speed and transparency.

These systems frequently incorporate automation (and increasingly AI) to assist in decisions – for example, using predictive models to flag fraud or to triage simple claims for straight-through processing.
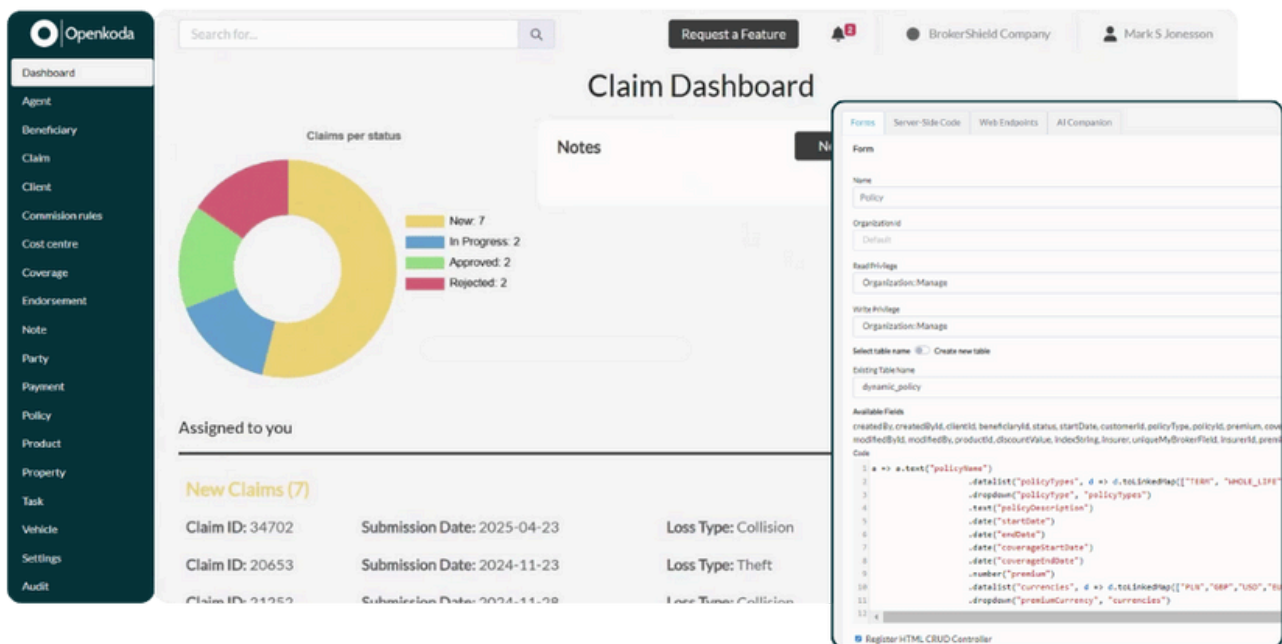
Main Purpose

The primary goal of claims management software is to **reduce the time, cost, and frictions involved in settling claims** while ensuring accuracy and compliance.

For policyholders, the claims experience is the "moment of truth" that can make or break their trust in the insurer. Thus, a modern claims system aims to shorten claim cycle times, keep customers informed, and get valid claims paid faster — all of which boost customer satisfaction.

For the insurer, a good claims platform **helps adjusters work more efficiently** (by automating routine tasks and guiding workflows) and helps control indemnity outcomes (by improving consistency in how claims are evaluated and paid). It also provides better data and analytics on claims trends, which can inform risk management and product pricing. Ultimately, effective claims software can lower overhead expenses (through automation and fewer errors) and even reduce claim leakage or fraud, contributing directly to the insurer's bottom line.

Key Features

An advanced insurance claims management system will typically offer features such as:

- **First Notice of Loss (FNOL) Intake:** Efficient, multi-channel capture of the initial claim report is essential. The software provides tools for customers, agents, or other parties to report a loss through various channels — phone, web portal, mobile app, email, etc. During FNOL, the system gathers all necessary information via dynamic question workflows (prompting specific questions based on claim type), and it can even incorporate media upload (photos of damage, documents). Modern systems use smart intake forms and even predictive questions to quickly record the incident details.

- **Automated Claim Assignment and Triage:** Once a claim is logged, the software can automatically assign it to the appropriate claims handler or team based on predefined rules. Assignment algorithms consider factors like the type and severity of claim, required adjuster expertise (e.g. property adjuster vs. auto specialist), current workloads, and even location for field inspections. For complex claims, multiple specialists may be assigned (for example, involvement of a fraud investigator or a subrogation specialist), which the system handles.
- **Instant Access to Policy & Coverage Data:** A claims system typically integrates with the policy administration database (or has a synchronized copy of relevant policy info) so that adjusters can immediately verify coverage upon receiving a claim. The software will pull in details like the insured's coverages, limits, deductibles, and policy conditions. This feature is critical – it tells the handler what coverages are in force and any exclusions that might apply, which drives how the claim is handled. Modern systems may even auto-determine coverage applicability (e.g. identifying which policy coverages are impacted by the loss) and set initial reserves accordingly
- **Workflow Management and Collaboration Tools:** Claims processing often involves multiple steps – investigation, documentation, review, approval – possibly by different people. Claims management software provides a structured workflow, tracking each claim's status and next steps.
- **Reserve & Payment Management:** As a claim is evaluated, the system allows adjusters to set reserves (the estimated cost of the claim) and update them as needed. When it's time to make a payment or settle the claim, the software handles the payment processing. A modern claims system will ensure that only authorized users can issue payments and often includes role-based approval rules for larger payments.
- **Recovery and Subrogation Handling:** After paying a claim, insurers may pursue recovery (subrogation) if a third party was responsible, or manage salvage of damaged property. Claims management software supports the full recovery lifecycle – identifying subrogation opportunities, tracking actions against third parties, and managing salvage vendors or auctions.
- **Customer Communication and Self-Service:** Many claims platforms now offer communication tools to keep policyholders updated. This can include automated status updates via email or text (for example, notification when an adjuster is assigned or when a payment is issued).
- **Robust Reporting & Analytics:** A modern claims system provides extensive reporting on claims metrics and KPIs. This includes real-time dashboards for claims managers to monitor workloads (e.g. how many claims each adjuster is handling, cycle times, closure rates) and identify bottlenecks or anomalies

Underwriting Software

What it is

Underwriting software refers to tools and platforms that help insurers evaluate risk and decide whether to insure an applicant (and at what price) **in a faster, more data-driven way**. Traditionally, underwriting has been a labor-intensive process: an underwriter gathers information on an applicant (from applications, credit reports, loss history, etc.), analyzes the risk factors, and applies judgment and guidelines to approve or reject the risk and determine the premium.

Modern underwriting software streamlines and automates much of this workflow. Often called an "underwriting workbench" or automated underwriting system, it provides underwriters (and in some cases agents or even consumers directly) with a **system to input data, have that data automatically analyzed** (using rule engines and predictive models), and output an underwriting decision or recommendation. This can dramatically reduce the time required to issue a policy – what once took days of correspondence can potentially be done in minutes with automated tools.
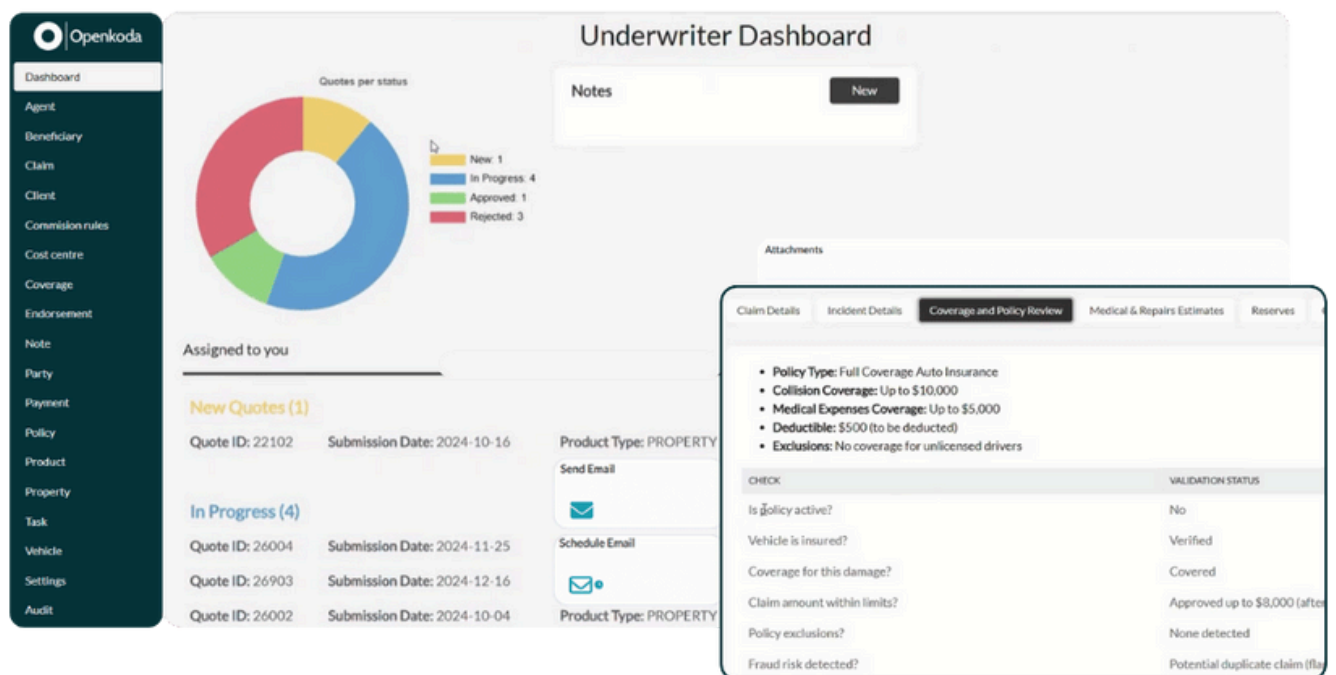
Main Purpose

The purpose of underwriting software is to **improve speed, consistency, and accuracy in risk selection and pricing**. For insurers, better underwriting tools mean they can process more applications in less time (boosting sales capacity), respond to customers faster, and ensure that pricing truly reflects risk (which protects profitability).

Automation in underwriting also helps **enforce compliance with underwriting guidelines** – reducing human errors or variance that could lead to underpricing or accepting ineligible risks. Moreover, advanced underwriting platforms enable insurers to tap into a wider array of data (beyond the few data points a manual underwriter might use) – for example, pulling real-time data from telematics devices or health wearables – leading to more informed decisions. The consistency brought by rules-based engines and AI models can also improve fairness and transparency in decisions (important for regulatory reasons and customer trust). Ultimately, underwriting software balances efficiency (lowering operational costs per policy) with portfolio quality (making sure the book of business is aligned with the company's risk appetite and targets).

Key Features

A modern automated underwriting system or workbench typically offers features such as:

- **Data Integration and Verification:** Underwriting begins with gathering data about the applicant or insured object. Sophisticated underwriting software automates this data intake and validation. It can ingest application details from digital forms, perform OCR on uploaded documents (e.g. scan and read a driver's license or medical report), and call out to external data sources via APIs. For example, upon receiving a life insurance application, the system might automatically fetch prescription history, motor vehicle records, credit scores, or telematics data without manual effort.

- **AI-Powered Risk Assessment:** Many underwriting platforms incorporate machine learning models trained on historical data to evaluate risk level. These AI models analyze patterns from past outcomes (claims, lapses, etc.) to predict the likelihood of a new applicant having a loss.

- **Rules-Based Decision Engine:** While AI provides a probabilistic risk score, insurers also have many hard rules that must be applied. Underwriting software includes a rules engine where the insurer's specific guidelines and regulatory requirements are encoded. These rules might cover things like: *"Decline any applicant with a DUI in last 5 years,"* or "Require manual review if coverage amount exceeds $1 million," or "If BMI over a certain threshold, route to further medical underwriting." The system systematically checks each application against these criteria. If all rules are satisfied and the AI risk score is acceptable, the software can automatically approve the application and calculate the final premium. If a rule triggers, the application might be routed for human underwriting or additional info. This rules-based layer ensures compliance with underwriting policies and consistency – every application is evaluated against the same standards, reducing subjectivity.

- **Real-Time (Instant) Decisioning:** A key advantage of automated underwriting is that much of this process happens in real time, often during the quote or application session itself. The system orchestrates dozens of actions behind the scenes – pulling data, running risk algorithms, applying rules – within seconds.

The result is that applicants can get an instant decision online ("approved – policy issued!" or perhaps "referred for further review") instead of waiting days for an underwriter's response. If the system cannot fully approve, it may generate a conditional decision (e.g. "approved pending medical exam") or a message that the application needs manual attention.

- **Underwriter Workbench & Collaboration:** For those cases that do require human underwriting, modern software provides an underwriter "workbench" – a comprehensive interface where underwriters can see the application data, AI score, and any rule flags, and then apply their judgment. They might request additional information through the system (the software can generate requests or questionnaires to the agent/customer), and then finalize a decision. The workbench often includes tools to quickly compare against similar cases or visualize the impact of adjusting certain factors.
- **Integration with Policy Administration:** Once an application is approved and the customer accepts, the underwriting system will typically pass the relevant data and decision to the policy administration system to formally issue the policy. Many underwriting platforms integrate this step so that a quote can seamlessly convert to an in-force policy record without re-keying information.

By 2025, industry experts expect that insurers using AI-driven underwriting throughout their value chain will have a strong strategic advantage, and by 2030, such AI-powered underwriting could reach mass adoption as a critical success factor. Many insurers in the U.S., Europe, and Asia are already using these tools to offer instant insurance policy approvals online (for products like auto, homeowners, or term life) and to empower their underwriters to handle complex risks more effectively.

Customer and Agent Portals (Self-Service Platforms)

What it is

In today's digital age, both insurance customers and agents expect intuitive online portals that give them direct access to insurance services.

Customer self-service portals are secure websites or mobile apps where policyholders can log in and manage their insurance policies – much like online banking, but for insurance. Similarly, agent portals are dedicated digital workspaces for independent agents or brokers to conduct business with the insurer (quoting, submitting applications, tracking their clients' policies and commissions, etc.).

These portals are typically linked to the insurer's core systems (policy, billing, claims) but present an easy-to-use interface tailored to the end user's needs. The goal is to empower users to get information or perform transactions on their own 24/7, without needing to call an underwriter or customer service rep, thereby improving convenience and efficiency for all parties.
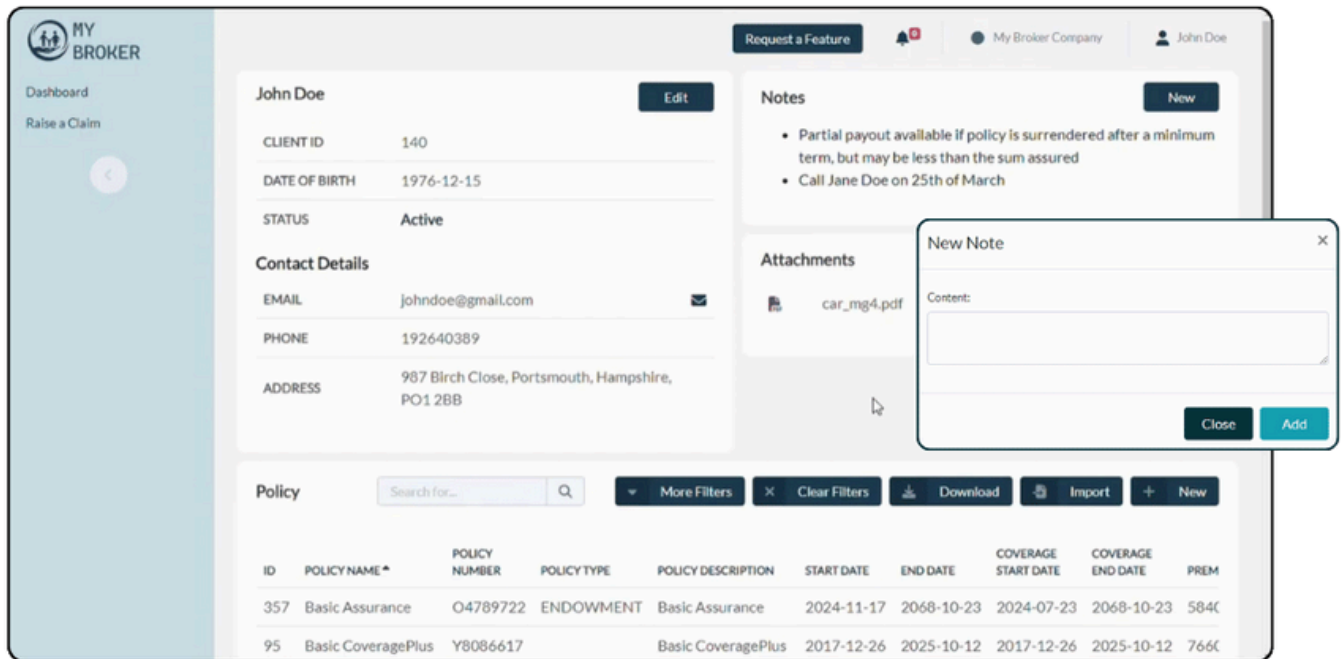
Main Purpose

For customers, a **self-service portal offers transparency and convenience**. It allows policyholders to **handle many routine tasks at their leisure** – whether that's checking their coverage details, updating a mailing address, downloading their insurance ID card, paying a bill, or even reporting a claim online.

This on-demand access **greatly enhances customer experience**; they are no longer limited by insurer office hours or waiting on hold. Empowering customers to self-serve also reduces the workload on insurance staff (fewer calls and manual requests), thus lowering administrative costs. For insurance agents, a well-designed portal is crucial for productivity and loyalty. Independent agents often sell policies for multiple carriers, so they gravitate towards carriers that are easiest to do business with. An agent portal that lets them quote quickly, get status updates, and manage their book of business in one place makes the agent's job simpler and fosters stronger partnerships.

Key Features

A customer-facing insurance portal typically includes a range of self-service features, often modular in design. Key capabilities include:

- **24/7 Account Access:** Customers can log in anytime (via web or mobile) to view their policy information and documents. They can see policy coverages, limits, renewal dates, premiums, and other details in real time.
- **Policy Servicing and Updates:** The portal allows policyholders to perform policy servicing actions on their own. For example, they might request a policy change (like adding a new car to an auto policy or updating the insured address) or initiate a renewal review. While some changes might still require underwriting approval, the portal guides the user through submitting the request and captures all needed info.

- **Online Payments and Billing:** A must-have feature is the ability for customers to make payments online. Portals integrate with billing systems so users can see their billing history, next due date, and pay premiums (one-time or set up automatic payments) using credit/debit cards or bank accounts. They can also view invoices, and in some cases, adjust payment plans or get billing reminders electronically. This convenience often leads to improved on-time payments and reduces the need for paper bills.
- **Claims Reporting and Tracking:** A modern insurance portal extends to basic claims functionality as well. Customers should be able to report a new claim (FNOL) through the portal by inputting incident details and even uploading photos or documents. The portal then provides a claim reference number and status tracking. As the claim progresses, the customer can log in to see updates (e.g. "in review", "payment issued on X date") and possibly communicate with the claims adjuster via a messaging feature.
- **Communication and Support Tools:** Built-in messaging or live chat features enable two-way communication without leaving the portal.
- **Online Quotes and Purchases:** Beyond servicing existing policies, many insurers enable end-to-end digital sales within the portal. A customer (or prospect visiting the site) can get quotes for new products, customize coverage options, and purchase a policy online – with the portal guiding them through each step.

While sharing some similarities with customer portals, agent portals are tailored to the needs of independent agents/brokers who may represent multiple insurers. Key features often include:

- **Unified Dashboard for Agent's Business:** Upon login, the agent sees a dashboard with an overview of their book of business with the carrier – active policies, upcoming renewals, recent quotes, and performance metrics (sales, commissions).
- **Quote and Policy Management Tools:** Agents can run quotes and submit applications directly through the portal, which is crucial for efficiency. A well-designed portal minimizes duplicate data entry and allows agents to go from quote to bind to policy issuance seamlessly in one system
- **Client and Lead Management:** Agents often have CRM-like functionality in portals – they can look up their clients' details, see all policies that a client holds, and perhaps get alerts for client birthdays or renewal dates. Some portals even provide lead generation or quote follow-up tools (for example, showing agents a list of quotes they gave that haven't bound yet, so they can follow up).
- **Training and Product Resources:** Carriers use portals to disseminate marketing materials, underwriting guidelines, product information, and training modules to agents.
- **Multi-Carrier Integration:** Recognizing that agents use various systems, leading portals may offer API connectivity so agents can integrate their agency management system or comparative raters.

AI-Driven Analytics in Insurance

What it is

AI-driven analytics in insurance refers to using artificial intelligence—particularly machine learning and generative AI—to extract insights from large volumes of insurance data faster, more accurately, and with far less manual effort than traditional analytics approaches. While insurers have always relied on data for pricing, risk assessment, and reporting, the real shift today lies in how that data is accessed and analyzed.

Modern AI tools no longer require every insight to be manually modeled, queried, or coded. Instead, insurers can interact with their data using natural language and receive actionable answers almost instantly.

Create detailed reports in seconds with your own natural language prompts

A growing part of this shift is generative AI applied to reporting and analytics. Rather than replacing actuaries or analysts, generative AI acts as an intelligent interface between business users and complex data models—translating plain-language questions into structured queries, such as SQL, and returning results in seconds.

Main Purpose

The primary goal of AI-driven analytics is to dramatically **reduce the time between a question and an answer**. In traditional insurance environments, generating even a simple report often involves multiple steps: defining requirements, passing them to analysts, **writing SQL queries, validating results, and formatting outputs**. This process can take days—or weeks—especially when data is spread across policy, claims, billing, and underwriting systems.

Generative AI changes this dynamic. With tools such as **Reporting AI**, business users can ask questions like:

- *"How many claims over €50,000 were settled last quarter by product line?"*
- *"Which policies have the highest loss ratio in the last 12 months?"*
- *"Show renewal rates by channel and region."*

The AI automatically converts these questions into optimized SQL queries, executes them against live insurance data, and presents results in a usable format. This enables insurers to make decisions faster, reduces dependency on technical teams, and frees analysts to focus on deeper, higher-value analysis rather than routine reporting.

Key Use Cases and Features

AI-driven analytics in insurance can manifest in various domains. Some of the most impactful applications and features include:

- **AI-Powered Reporting and Natural-Language-to-SQL Analytics:** Generative AI is transforming how insurers access and analyze data by eliminating the need for manual SQL writing. With Reporting AI, business users can ask questions in plain language—such as "Which claims exceeded €100,000 last quarter?" or "Show loss ratios by product and region"—and the system automatically generates and executes the required SQL queries.
- **Claims Analytics and Fraud Detection:** AI models analyze historical claims data, behavioral patterns, and external signals to identify anomalies, inefficiencies, or potential fraud. Generative AI enhances this capability by allowing users to explore claims data interactively, asking follow-up questions and drilling deeper without predefined dashboards.
- **Risk, Pricing, and Portfolio Performance Insights:** AI-driven analytics support more granular analysis of underwriting performance, pricing adequacy, and portfolio health. Generative AI enables underwriters and product teams to quickly explore questions such as "Which segments are underperforming?" or "How has pricing accuracy evolved over the last 12 months?" without waiting for custom reports.

Key Challenges in Custom Insurance Software Development

Building custom software for insurance is a complex endeavor. Insurance organizations often find that developing their own tailored systems (or significantly customizing vendor platforms) comes with a unique set of challenges. Here are some of the key hurdles industry professionals should keep in mind:

- **Integration with Legacy Systems and Data Silos:** Many insurers still rely on legacy core systems (e.g. decades-old mainframe policy admin or claims systems). Developing new software that connects seamlessly with these existing systems is a major challenge. Every new application (whether it's a mobile app or an AI analytics tool) typically needs to interface with policy databases, billing systems, document repositories, third-party data services, and more.

- **Regulatory Compliance and Security Requirements:** Insurance is one of the most heavily regulated industries, with strict rules on data privacy, consumer protections, and financial reporting. Custom software **must be built to bake in compliance from day one**, which adds complexity. For example, systems must enforce appropriate access controls (e.g. only licensed individuals can perform certain transactions, separation of duties for financial controls), maintain audit trails of all changes, and adhere to regulations like GDPR for data privacy or specific insurance laws in each country/state.

- **High User Expectations (UX and Omnichannel):** In the age of Amazon and Google, users expect insurance software – whether internal or customer-facing – to be intuitive, fast, and available on any device. **Delivering a great user experience is challenging because insurance processes are inherently complex**. Designers and developers must simplify complicated workflows (quoting, claims, policy servicing) into clean, easy interfaces.

> Insurers no longer have to waste months and millions on rigid legacy systems. A modern core platform gives teams the freedom to launch new software and products rapidly, iterate continuously, and scale without friction. It's the most effective way to innovate while keeping budgets under control.

Michał Głomba
Openkoda Founder

- **Long Development Cycles and Undifferentiated Work:** Traditional custom development projects often have very long timelines – **months or years before delivering value.** One reason is that teams spend enormous effort on foundational scaffolding that doesn't directly add competitive advantage. For instance, setting up user authentication, role-based access control, databases, logging frameworks, basic CRUD screens, etc., often takes months at the start of a project. While necessary (every system needs security, auditing, etc.), **these are solved problems that are repeatedly being rebuilt from scratch.** Meanwhile, business stakeholders may grow frustrated waiting to see progress or ROI, since the early phases produce little visible functionality.

> In custom insurance software projects, you don't need to reinvent the wheel. It's smarter to start from a solid foundation of ready-made application templates, RBAC, dashboards and integrations— and build the specific logic you really care about.
>
> **Arkadiusz Drysch**
> CTO Stratoflow

- **Cost Management and ROI Uncertainty:** Building software in-house or custom can be expensive. Requirements often evolve, causing scope creep. It can be difficult to estimate effort accurately given the complexity and integration needs, leading to cost overruns. Furthermore, because the insurance domain is complex, domain experts (underwriters, actuaries, claims experts) **must be heavily involved in development to ensure the software meets real needs, which can strain internal resources.** There is also the risk that a custom project, once delivered, might not achieve the expected ROI – perhaps users don't adopt it as hoped, or maintenance costs eat into savings.
- **Talent and Expertise Gaps:** Insurance IT projects today require a mix of skills – not just core programming, but cloud architecture, cybersecurity, AI/ML expertise, user experience design, and deep knowledge of insurance operations. **There is a talent shortage in many of these areas**, especially AI and data science, as well as experienced developers who also understand insurance intricacies. Insurers may struggle to assemble a team with all the needed skill sets. They often rely on external vendors or system integrators, which can introduce communication gaps or reliance on third parties. Even when using vendor software, customizing and integrating it requires strong internal or contracted talent.

- **Managing Change and Stakeholder Buy-In:** Finally, custom software development in insurance isn't just a technical endeavor; it's a change management exercise. Introducing new systems means changing workflows that agents, underwriters, or customers have used for years. There can be internal resistance, especially if legacy systems have been in place for decades. Ensuring that end-users are trained and willing to adopt the new software is critical, otherwise the investment may not yield benefits.

In summary, while custom insurance software can deliver tailored solutions, insurers must navigate these challenges carefully. Integration and compliance are unavoidable heavy lifts, user-centric design is imperative (yet demanding), and development must be sped up to keep pace with market needs. In response to these difficulties, many insurers are exploring new approaches – such as low-code platforms, open-source frameworks, or core-platform-as-a-service offerings – to accelerate development and avoid "reinventing the wheel" on common components. One such approach is exemplified by the Openkoda platform, discussed next, which specifically aims to streamline custom insurance software projects by addressing many of the repetitive challenges out-of-the-box.

Openkoda Core Insurance Platform: Accelerating Custom Solutions

Given the challenges above, the industry is keenly interested in solutions that can make custom insurance software development faster and easier, without sacrificing quality or compliance.

Openkoda is one example of a modern approach: it is an open-source enterprise platform specifically designed for building insurance applications and products with speed and flexibility. In essence, Openkoda provides a ready-made core foundation and a suite of pre-built insurance modules, so that development teams can focus on innovation and business-specific features rather than reinventing common components from scratch.

What Is Openkoda?

Openkoda is an open, extensible <u>core insurance platform</u> designed to help insurance companies, <u>Managing General Agents (MGAs),</u> and insurtechs build custom insurance systems faster and with greater control.

Rather than being a fixed, off-the-shelf insurance product, Openkoda provides a solid, production-ready foundation on top of which insurers can create exactly the applications they need—from policy and claims systems to portals, embedded insurance solutions, and internal tools.

At its core, Openkoda addresses a common problem in insurance software development: too much time and budget are spent repeatedly building the same foundational components—**user management, permissions, audit logs, workflows, document handling, integrations**—before any real business value is delivered. Openkoda eliminates this undifferentiated heavy lifting by offering these capabilities out of the box, **allowing teams to focus immediately on insurance-specific logic, unique workflows, and competitive differentiation**.

> "
>
> Openkoda was born from a simple idea:
> insurers should be able to launch and evolve
> digital products fast—on their own terms,
> without vendor lock-in.
>
> Michał Głomba
> CEO Openkoda

The platform is built using standard, widely adopted technologies and programming languages, which means development teams are not forced into proprietary tooling or vendor-specific frameworks. This makes Openkoda suitable both for in-house development teams and for organizations working with external partners, while ensuring long-term maintainability and flexibility.

Openkoda's Value to Insurers and MGAs

Openkoda delivers value primarily through speed, flexibility, and control. By starting from a ready-made enterprise-grade core, insurers can dramatically shorten development cycles and reduce time-to-market for new products, channels, or system modernizations. What traditionally takes months of groundwork can be achieved in a fraction of the time, without compromising on security, scalability, or compliance.

At the same time, Openkoda supports deep customization. Insurance organizations are not required to adapt their processes to fit rigid software constraints. Instead, the platform is designed to be extended and shaped around existing business models, regulatory requirements, and product complexity—whether that involves specialty insurance products, multi-entity structures, or complex underwriting and claims workflows.

Openkoda also embeds modern capabilities such as AI-driven reporting, automation, and advanced analytics directly into the platform, enabling insurers to adopt innovation incrementally rather than through separate, disconnected projects.
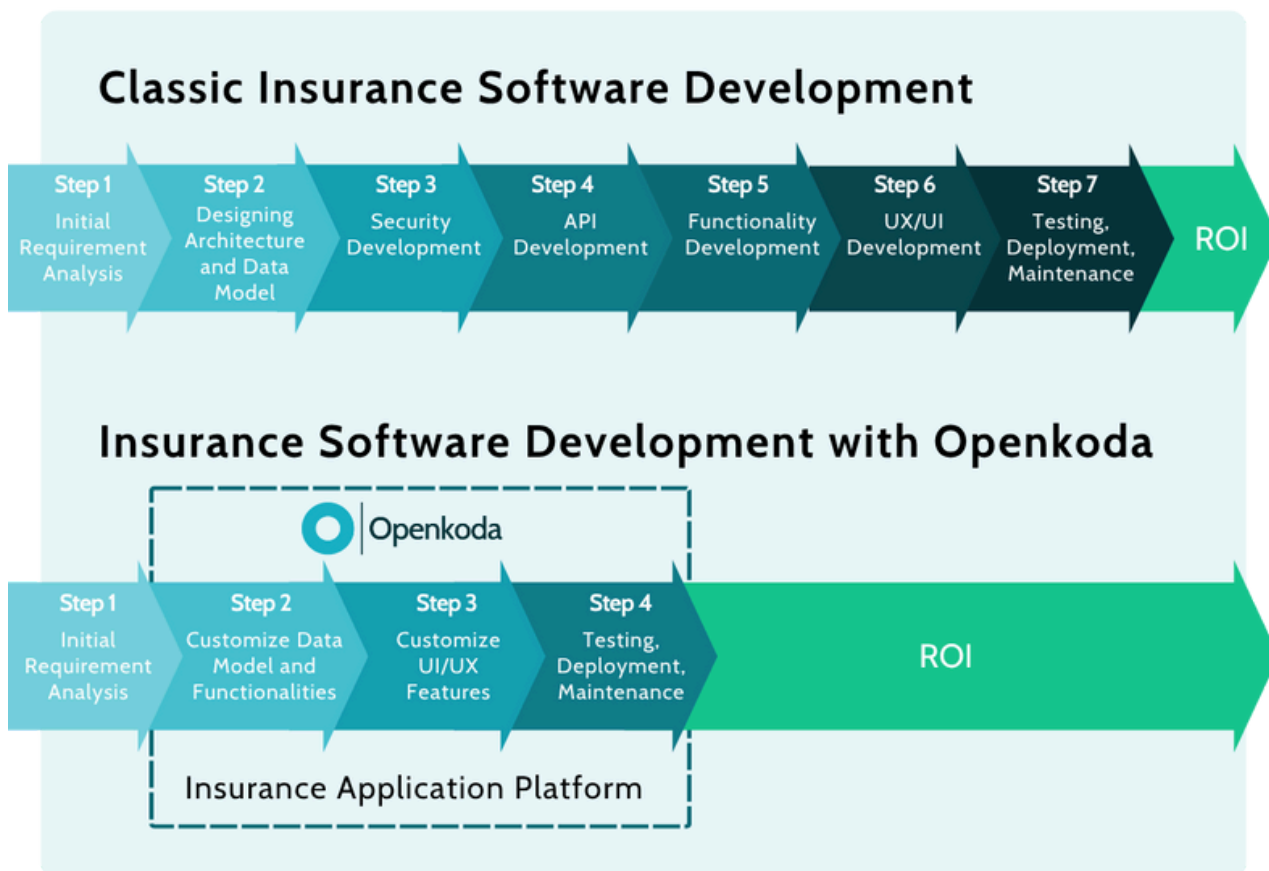
What Differentiates Openkoda from Similar Solutions

What sets Openkoda apart from many traditional insurance platforms and low-code tools is its open and developer-centric approach. Unlike closed, proprietary systems that limit customization and create long-term vendor lock-in, **Openkoda gives insurers full access to the codebase and complete ownership of their applications and data**. This reduces strategic risk and allows organizations to evolve their systems independently as business needs change.

Compared to classic low-code platforms, Openkoda does not sacrifice flexibility for speed. While low-code tools often simplify development at the cost of control and scalability, Openkoda combines acceleration with the ability to implement complex, production-grade insurance logic using standard development practices. This makes it suitable not only for simple workflows, but also for mission-critical core systems.

Finally, **Openkoda is purpose-built with insurance in mind**. Its architecture, templates, and built-in features reflect real insurance use cases - insurance policy management, claims processing software, reporting, compliance, and integration-heavy environments—rather than generic business processes.

Conclusion

Custom insurance software development is undoubtedly challenging, but it's increasingly critical for insurers aiming to stay ahead in a fast-evolving market.

By understanding the market trends (such as surging insurtech investments and the essential role of AI), focusing on the right software solutions (policy admin, claims, underwriting, portals, analytics), and proactively mitigating development challenges (through platforms like Openkoda or similar approaches), insurance organizations can successfully modernize their technology landscape.

The end result is an insurance operation that is more agile, data-driven, and customer-centric — capable of delivering the kind of digital experience and efficiency that today's policyholders, agents, and regulators expect.

Are you looking to modernize your insurance software architecture?

Schedule your own personalized Openkoda demo today!