



In association with **Guidewire**

ACCELERATE AND DERISK MIGRATION FROM MAINFRAME TO GUIDEWIRE

Preserve institutional knowledge that differentiates a carrier. Remove the legacy complexity that constrains it. Accelerate transformation into a modern business powered by Guidewire, while lowering the investment needed and delivery risk.



A carrier's legacy estate contains decades of valuable insurance knowledge locked up in mainframe applications: product definitions, operational workflows, underwriting rules, claims practices, billing information and customer data. It also contains complexity that slows change. Advancements with agentic AI present an opportunity to preserve what differentiates the business, transform what constrains it and translate the result into a modern core that unleashes business value.

Core modernization is traditionally difficult and expensive

Replacing and transforming an insurance core is an arduous effort that requires heavy investment and extensive effort from business and technology teams over lengthy timelines. Teams must understand all aspects of insurance business, surface decades of business logic buried across millions of lines of legacy code, redesign products and processes, translate established business rules, rebuild integrations, convert and reconcile operational data, fulfil regulatory obligations and upskill talent. Business experts and technologists must validate end-to-end behavior, controls and readiness for adoption while maintaining day-to-day operations. The complexity and dependencies across multiple workstreams often extend the original schedule, budget and time before business benefits can be realized.¹

The risk of missing expected value is substantial. *Deloitte Insights* cites that nearly 70% of large-scale change initiatives fall short of their long-term goals.² This reinforces the need to connect core transformation decisions and delivery to measurable business outcomes.



Deloitte's agentic AI solutions are reimagining the paradigm

Deloitte's Ascend Insights for Mainframe enhances a tested deterministic toolset with an agentic framework to deliver reliable, insurance-specific results. The solution uses an insurance domain ontology layered approach: a shared insurance vocabulary that connects legacy artifacts to actors, products, workflows, rules and data relationships. It translates technical evidence into business insights that teams can use to design the future core.³

This business context is used to comprehensively understand current state, make business decisions on what needs to be retained or retired, define the opportunities for transformation and provide documented artifacts that guide discovery, design, configuration and testing. The approach is designed to drastically reduce manual effort, timelines, and delivery risk, helping carriers reach business value sooner:

01 Understand and translate the legacy estate.

Ascend Insights for Mainframe runs a comprehensive discovery of the legacy systems, connecting application code, business rules, database structures, batch jobs, interfaces and other legacy artifacts to the insurance capabilities they support. The result is a business-centric view of institutional knowledge in legacy systems organized into epics, features, sub-features and a curated backlog with well-defined Guidewire-centric user stories and acceptance criteria. Human validation is built into the process and designed to use the time of scarce business subject-matter experts judiciously.

02 Reimagine the business.

Business leaders use the outputs of Ascend Insights for Mainframe to decide which products and processes to preserve, simplify or redesign. An agentic business process analyzer recommends which workflows are ripe for agentic automation, identifies redundant rules and develops target-state business processes. An agentic product analyzer compares current products to carriers' peers and identifies opportunities for making the products more competitive. Business teams are fully engaged in resolving choices on where to modernize while retaining the underwriting, claims and service practices that differentiate the carrier.

03 Configure and validate Guidewire.

Approved user stories and acceptance criteria become shared inputs for generating Guidewire configuration and test assets using Agentic Software Development Lifecycle tools, including Guidewire's Developer and Builder Assistants.⁴ Linking requirements to rules, interfaces and data dependencies help surface impacts earlier, while traceable functional and regression testing supports validation. Automating repeatable build and testing tasks shortens feedback cycles and reduces manual effort. Carriers can sequence releases by product or capability to manage coexistence with the legacy estate and maintain operational continuity.

The approach is underpinned by the following foundational components for trustworthy transformation:



Human validation governs each critical step.

Deloitte's solution is designed to align AI governance and validation controls with the NIST AI Risk Management Framework.⁵ Business and technology owners approve extracted knowledge, future-state requirements, generated configuration, data reconciliation, test results and production release. Transparent governance records source evidence and a comprehensive audit trail. End-to-end traceability makes each output explainable and each approval accountable.



Quality engineering and controls.

Testing is traced to approved requirements, with automated functional, integration and regression checks. Data is validated and reconciled, and operational, financial and security controls are built into the delivery process.



Enterprise-grade engineering and domain ontology.

Deloitte's Ascend solution is underpinned by a state-of-the-art, enterprise-grade engineering foundation. This foundation includes an insurance ontology that gives legacy artifacts, products, workflows and business requirements a consistent meaning.

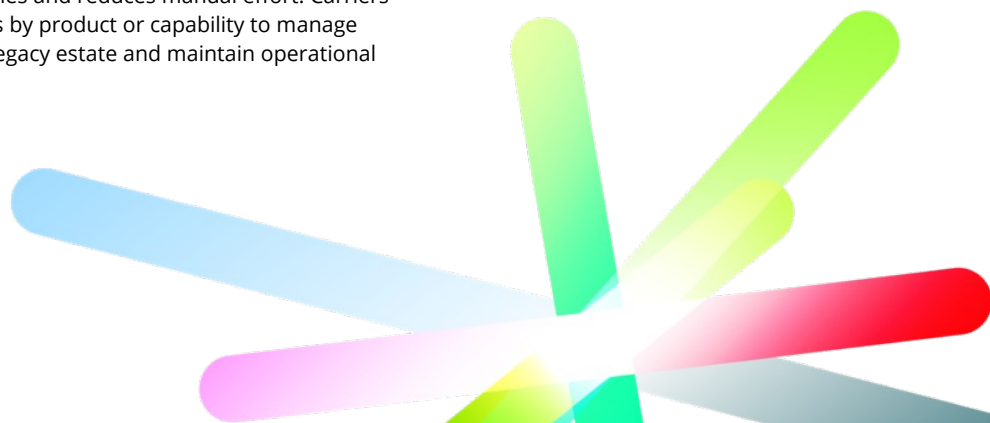
A flexible path from legacy to Guidewire

The approach supports different migration archetypes, as below, with Guidewire InsuranceSuite⁶ as the target platform. A carrier can choose one of these archetypes, or a combination based on product, channel or capability.

Lift and shift with functional continuity. Preserve validated business behavior where continuity is the priority. Translate existing rules and workflows into Guidewire requirements, eligible configuration and tests, adapting them to the target platform.

Selectively transform. Choose specific aspects of the business for improvement. For example, redesigning workflows like submission to intake process, claims first notice of loss, or specific products. Resolve redundant rules and steps before configuration, while preserving existing behavior elsewhere.

Reimagine the business. Design future-state products, processes, roles and experiences around business goals, then translate the approved target-state design into a modern business powered by Guidewire.



Evidence from the field

The following case studies demonstrate how AI-assisted discovery and disciplined Guidewire delivery can successfully address different dimensions of the modernization challenge:

Accelerating discovery of legacy business functions

A major North American insurer needed to connect more than 60 million lines of undocumented COBOL to specific business capabilities. Deloitte used dependency mining, generative AI and a proprietary framework to map 90% of the codebase to business functions in under four weeks. The published engagement reports reduced manual effort and cost, improved decision-making and laid a foundation for subsequent modernization. It demonstrates accelerated discovery and business-function mapping.¹

Guidewire design and fitment reviews and a deep code scan supported readiness. Executive engagement, training and early visibility of risks helped the teams address roadblocks, demonstrating the role of expert review and disciplined delivery in realizing Guidewire value.²

Launching five commercial products across 50 states

A global insurer needed a scalable core for its US middle-market business. After a three-month assessment, it selected Guidewire PolicyCenter on Guidewire Cloud Platform. Deloitte delivered an MVP for general liability, workers compensation, commercial auto, commercial property and lead umbrella across all 50 states within the targeted 12 months. Quote processing fell from days to hours and the first bind order arrived four days after go-live.

A more accessible path to business value

Trustworthy agentic AI applied with human accountability and enterprise controls and grounded in deep mainframe knowledge and decades of deterministic business rule extraction can reduce the investment hurdle and delivery risk of legacy migration. Faster discovery, business-led requirements and automation of eligible configuration and testing can expand access to a modern Guidewire core. That foundation opens opportunities for business growth, operating efficiency and better customer and employee experiences.

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ENDNOTES

1. Deloitte, [Core system transformation: What boards need to govern when "budget and milestones" are no longer enough](#), May 13, 2026. Discusses insurance operating-model change, cross-workstream dependencies, business readiness and benefit shortfalls.
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4. Guidewire, [Guidewire Introduces Qusar Release to Help Insurers Build and Control AI Agents](#), August 3, 2026. Developer and Builder Assistants include early-access features; availability varies by region and access program.
5. National Institute of Standards and Technology, [AI Risk Management Framework: Core](#), accessed October 1, 2026. The proposed solution is designed to align its governance and validation controls with this framework. GOVERN 1, 2 and 3 address documented policies, accountability and human oversight. Alignment describes the design approach; it does not imply NIST certification.
6. Guidewire, [InsuranceSuite](#), accessed September 30, 2026.
7. Marlin Metzger, [Mainframe modernization: The AI-human synergy](#), Deloitte, October 10, 2024. The insurer example reports discovery and mapping of code to business functions; it does not document user-story generation or Guidewire configuration.
8. Deloitte, [Accelerated implementation unlocks middle market growth outcomes](#), accessed September 30, 2026. Results relate to the published engagement, not a guaranteed outcome for another carrier.

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