Success Story

Modernizing Insurance Operations with Event-Driven Integration Architecture

OVERVIEW

A leading insurance organization operating across Guidewire, Salesforce, and multiple enterprise applications had an established integration architecture that, over time, became increasingly complex and difficult to scale. Highly customized point-to-point integrations and tightly coupled dependencies slowed release cycles, constrained agility and limited operational visibility into business events flowing across the ecosystem.

Exavalu's Integration Practice redesigned the architecture using an Event-Driven Architecture (EDA) approach, decoupling enterprise applications through asynchronous publish-subscribe event exchange. A domain-driven common data model and canonical event model were introduced to establish consistency across business domains, enabling seamless interaction between insurance systems. The architecture allowed any event producer or consumer to be onboarded with minimal IT dependency while providing real-time operational visibility and self-service recovery capabilities through a centralized Operational Control Portal.

BEFORE → AFTER

Traditional Integration Model

- Tightly coupled, point-to-point integrations
- Slow releases with high maintenance overhead
- Limited visibility into transaction flows, events and failures

TRANSFORMATION

Event-Driven Integration Platform

- Decoupled Pub-Sub architecture
- Independent scaling per producer/ consumer
- Common event model for seamless system interaction
- Real-time operational visibility & self-service replay

CHALLENGES

The carrier's existing integration ecosystem, while functional, had become a constraint on growth and operations across multiple dimensions:

- Tightly coupled integrations across critical insurance platforms created fragile dependencies, where changes in one system required coordinated updates across interconnected applications.
- Complex integration patterns increased delivery timelines and maintenance overhead, slowing the introduction of new products, capabilities, and business changes.
- Limited scalability and flexibility in the existing integration architecture made it challenging to support increasing transaction volumes, new products, and evolving business demands.
- Limited operational visibility into end-to-end transaction flows made issue diagnosis dependent on engineering teams, increasing resolution time and operational effort.
- Transaction failure recovery relied heavily on manual intervention, impacting operational efficiency and delaying downstream business processes such as policy servicing, claims processing, and customer communications.

HOW EXAVALU MADE AN IMPACT

Exavalu's Integration Practice redesigned the carrier's integration landscape end-to-end - from architecture and data modeling through platform assessment, solution/architecture modernization, testing and operational enablement:

The core architectural shift transformed tightly coupled point-to-point integrations into an asynchronous, event-driven publish-subscribe model. Guidewire, Salesforce, and other enterprise applications were decoupled through a central event backbone and canonical event model, enabling systems to operate independently as event producers and consumers.

Canonical Domain Data Model:

An intermediate **domain-aligned** canonical model was introduced to standardize data transformation and mapping across the integration layer, reducing the complexity **and accelerating** onboarding new producers or consumers as the business scales.

Operational Control Portal:

A purpose-built, centralized portal gave operations teams real-time visibility into every transaction in flight. Teams can search by policy number, claim ID, or event type; monitor live dashboards showing transaction volumes and processing status; receive proactive alerts before failures impact the business; and replay failed transactions in minutes without engineering **dependency.**

Independent Scalability Architecture:

Producers and consumers were architected to scale independently based on workload demands, removing the architecture constraints that limited the carrier's ability to handle peak volumes and evolving **business needs.**

Future-Ready Foundation:

The event-driven platform was designed as a future-ready integration foundation, supporting cloud initiatives, microservices adoption, AI-driven event processing, and ecosystem integrations as they evolve.

BUSINESS IMPACT

Independent Scalability

Producers and consumers scale independently no shared bottlenecks under peak load

Rapid Delivery

New integrations onboard without impacting existing producers or consumers

Minutes to Resolve

Failed transactions recovered via self-service replay what once took hours now takes minutes

Real-Time Visibility

End-to-end transaction tracking and live dashboards across all systems

TECHNOLOGY STACK

Guidewire | Salesforce | Mulesoft | Event-driven Architecture

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KEY BENEFITS

1. Decoupled integration landscape —

Enterprise applications operate independently through an event-driven architecture, reducing fragile cross-system dependencies and improving agility.

2. Accelerated product delivery —

New insurance products and integrations launch without re-engineering existing connections.

3. Operational self-sufficiency —

Teams can diagnose and recover failed transactions through self-service capabilities, without engineering escalation.

4. Real-time business insight —

Live dashboards and end-to-end transaction tracking provide operational transparency across business event flows.

5. A platform built for growth —

The event-driven provides a scalable foundation supporting cloud adoption, microservices modernization, AI-enabled processing and ecosystem expansion.