

#### Introduction

In the rapidly evolving landscape of insurance technology, Guidewire stands as a cornerstone solution, offering a comprehensive suite for managing policies, claims, and billing. As insurance companies increasingly adopt and customize Guidewire's platform, the need for efficient, secure, and comprehensive test data automation solutions becomes paramount. GenRocket presents an advanced test data solution to address the unique challenges faced by Guidewire users in generating, automating, and securing test data throughout the software development lifecycle.



#### **PolicyCenter**

- Policy Submission
- Underwriting
- Policy Servicing
- Renewals

#### ClaimCenter

- First Notice of Loss
- Claim Assessment
- Investigation
- Settlement

#### **BillingCenter**

- Invoice Generation
- Payment Processing
- Account Management
- Collections

# The Guidewire Ecosystem & Test Data Challenges in Implementation

Guidewire's platform consists of three core applications:

- 1. PolicyCenter
- 2. ClaimCenter
- 3. BillingCenter

These applications can be deployed individually or as part of the integrated InsuranceSuite. Guidewire has been transitioning its offerings to a Software as a Service (SaaS) model called Guidewire Cloud, which provides enhanced scalability, regular updates, and improved security.

However, implementing and testing Guidewire applications presents several significant challenges:



**Data Security and Compliance:** Real customer data cannot be used for testing due to privacy concerns and strict regulations like GDPR and HIPAA. Insurers need a way to create realistic test data without exposing sensitive information.



**Complex Data Relationships:** Insurance data involves intricate relationships between policies, claims, and billing information. Testers must ensure that these relationships are accurately represented in test scenarios.



Large Data Volumes: Comprehensive testing requires substantial amounts of data to simulate real-world scenarios and stress test the system.



**Data Variety:** Different test scenarios require a wide range of data variations to cover all possible use cases, including edge cases and rare events.



**Cost of Non-Production Environments:** In Guidewire Cloud, each non-production instance incurs costs. Efficient test data automation can help reduce these expenses.



**Continuous Integration and Delivery:** The need for rapid, iterative testing in CI/CD pipelines demands quick generation and refresh of test data.



**Custom Workflows:** Many insurers customize Guidewire to fit their specific business processes, requiring tailored test data that reflects these customizations.



**Integration Testing:** Guidewire often integrates with numerous external systems, necessitating test data that can validate these integrations effectively.

## GenRocket's Comprehensive Solution for Guidewire Test Data Automation

GenRocket offers a synthetic Test Data Automation (TDA) platform that addresses these challenges head-on.

GenRocket vs Traditional Test Data Management for Guidewire		
Capabilities	Traditional TDM	GenRocket TDA
Data Security	Risk of exposing sensitive data	100% synthetic, secure test data
Data Volume	Limited by storage and masked production data	Unlimited volume, generated on-demand
Data Delivery	Hours to days for large datasets	Millions of rows per minute
Data Variety	Limited to existing production data patterns	Unlimited scenarios and edge cases
Guidewire Cloud Optimization	Multiple expensive non-prod environments	Reduced non-prod instances, lower costs
CI/CD Integration	Manual data refresh, slows pipelines	Automated, real-time data generation

#### **Advanced Synthetic Data Generation**

- Design realistic, fictitious data that mimics production data without exposing sensitive information.
- Support for over 750 data generators and 109 data formats, ensuring coverage for all Guidewire data types.
- Scenario-based test data cases allows the design of specific data sets tailored to particular test cases.

#### **Intelligent Data Masking & Subsetting**

- Mask sensitive data (PII) when subsetting from production, ensuring compliance with data privacy regulations.
- Achieve high-speed data subsetting (2.5 million rows per minute) for efficient test data preparation.
- Maintain referential integrity across subsetted data, crucial for accurate testing of Guidewire's interconnected modules.

#### **Dynamic Data Delivery**

- Deploy subsets up to 100 million rows to multiple databases simultaneously, enabling comprehensive performance testing.
- Support for various database types used in Guidewire implementations, including PostgreSQL and Oracle.

#### **Complex Relationship Modeling**

- Accurately model and generate data maintaining referential integrity across Guidewire's interconnected systems (PolicyCenter, ClaimCenter, BillingCenter).
- Ensure that generated data reflects the complex business rules and workflows specific to insurance operations.

### **Seamless Local Development Support**

- Enable developers to work with synthetic test data locally, reducing dependency on shared environments and associated costs.
- Facilitate faster development cycles by providing instant access to required test data.

#### **Comprehensive Test Case Integration**

- Seamlessly integrate with Guidewire Test Framework (GTF) and other popular testing tools like Selenium, TestNG, and Cucumber.
- Support for automated test execution with G-Tests, enhancing the efficiency of regression testing.

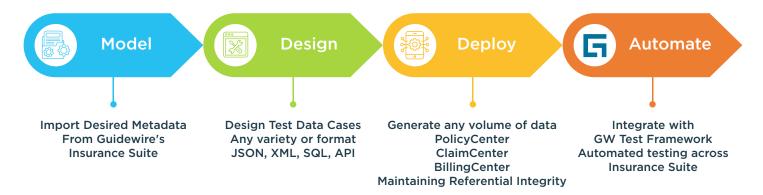
#### **Guidewire Cloud Optimization**

- Reduce costs associated with non-production instances in Guidewire Cloud by leveraging local data generation and testing capabilities.
- Enable efficient testing of Guidewire Cloud updates and patches without incurring additional infrastructure costs.

#### Continuous Integration and Delivery (CI/CD) Support

- Integrate test data generation into CI/CD pipelines, ensuring fresh, controlled and conditioned data for each test run.
- Automate the creation and refresh of test data environments, supporting agile development practices.

#### GenRocket's Test Data Automation Workflow for Guidewire



#### **Key Benefits for Guidewire Users**

GenRocket offers a synthetic Test Data Automation (TDA) platform that addresses these challenges head-on.

- Enhanced Data Security and Compliance: Eliminate the risk of exposing sensitive customer information during testing, ensuring compliance with data privacy regulations.
- Improved Test Coverage: Generate diverse data sets to cover all possible scenarios and edge cases, including complex insurance products and claim scenarios.
- Increased Testing Efficiency: Rapidly design and deploy comprehensive and secure test data, accelerating the testing process and reducing time-to-market for new features and updates.
- **Significant Cost Reduction**: Minimize the need for multiple non-production database instances in Guidewire Cloud, leading to substantial infrastructure cost savings.

#### Potential Cost Savings with GenRocket for Guidewire Testing



Based on average figures for mid-sized insurance company Guidewire implementation

- Streamlined Compliance Processes: Meet data privacy regulations more easily by using synthetic data instead of production data, simplifying audit and compliance procedures.
- Accelerated Development and Testing: Enable developers and testers to generate
  and test with synthetic data locally, reducing contention for shared datasets and
  improving productivity.
- Enhanced Integration Testing: Easily generate test data that spans across Guidewire modules and external systems, ensuring robust end-to-end testing.
- Improved Performance Testing: Create large volumes of data to assess system performance under various loads, ensuring Guidewire implementations can handle peak demands.

#### **Comprehensive Use Cases**



**Policy Lifecycle Testing:** Generate diverse policy submission data for comprehensive testing of PolicyCenter, including new business, renewals, and policy changes.



Claims Processing Scenarios: Create varied claim scenarios to thoroughly test ClaimCenter functionality, from first notice of loss to settlement.



**Billing and Invoicing Validation:** Produce a wide range of billing data to validate BillingCenter operations, including different payment methods and billing cycles.



**Cross-System Integration:** Test complex scenarios involving interactions between PolicyCenter, ClaimCenter, and BillingCenter, ensuring seamless data flow and consistency.



**Performance and Scalability Testing:** Generate large volumes of data to assess system performance under various loads, simulating peak business periods.



**Regulatory Compliance Testing:** Create data sets that test specific regulatory requirements, ensuring Guidewire implementations meet industry standards.



**User Acceptance Testing (UAT):** Provide business users with realistic, relevant data for UAT, improving the quality and relevance of user feedback.



**Guidewire Cloud Migration Testing:** Facilitate testing of data migration processes when moving from on-premise to Guidewire Cloud, ensuring data integrity and system functionality.

### GenRocket's Unique Approach to Guidewire Testing

GenRocket's solution goes beyond traditional test data management tools by offering:

- Real-Time Test Data Generation: Generate test data on-the-fly during test execution, enabling dynamic and adaptive testing scenarios.
- Collaborative Test Data Design: Enable collaboration between business analysts, developers, and testers in designing and managing test data.
- Version-Controlled Test Data: Maintain different versions of test data aligned with Guidewire releases and custom development cycles.
- **Test Data Analytics:** Provide insights into test data usage, coverage, and effectiveness, helping teams optimize their testing strategies.

#### **Implementation & Support**

GenRocket offers comprehensive support for implementing its test data solution in Guidewire environments



**Integration Services:** Assistance in integrating GenRocket with existing testing tools and CI/CD pipelines.



**Ongoing Support:** Dedicated support team to address any issues and provide guidance on best practices.

# Empowering Insurance Innovation Through Advanced Test Data Management

GenRocket's Test Data Automation platform offers a robust, scalable, and efficient solution to the complex challenge of test data management in Guidewire implementations. By leveraging advanced synthetic data generation, intelligent masking and subsetting, and seamless integration capabilities, insurance companies can significantly enhance their testing processes, improve data security, and optimize costs associated with Guidewire implementations and ongoing development.

In an era where data-driven decision-making and digital transformation are paramount in the insurance industry, GenRocket empowers organizations to leverage the full potential of their Guidewire investments, ensuring high-quality software delivery, regulatory compliance, and ultimately, superior customer experiences.