

# Accelerating Insurance Legacy Modernization

Avoiding Data Breach During Application Retirement with the Informatica  
Solution for Test Data Management

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## Executive Summary

The evolving marketplace is challenging life, property and casualty, and group insurance companies to modernize their infrastructure by replacing legacy applications with more up-to-date technology. As they retire legacy applications and archive dormant data, insurers must also protect themselves against the risks and costs of data breaches by securing all sensitive information in data used for development and/or testing. This white paper examines why legacy modernization projects pose a risk of data breaches and offers a way for insurers to mitigate the risk.

# Modernizing Legacy Insurance Systems

A 2013 LOMA industry survey identified modernizing legacy systems as one of the top three technology investments in the insurance industry. The types of modernization investments fall into three general categories:

- Replacing the legacy platform with packaged solutions
- Bolting on new functionality to existing legacy platforms
- Migrating from the mainframe to more modern mid-range platforms

Each has a specific business purpose, benefits, risks, and dependencies from a data management perspective. However, they all share a need to protect sensitive information in the data used for development and testing in order to avoid risking a data breach. This is a high-priority concern because data breaches can have a strong negative impact on an insurer's reputation as well as its finances.

## Costs and Risks of Data Breaches

For insurers, the direct and indirect costs of a data breach can be extreme: consulting fees, litigation fees, fines for regulatory noncompliance, and loss of customer confidence, not to mention loss of customers themselves. According to the Ponemon Institute's annual study of the issue, the average cost of a U.S. data breach reached \$5.5 million dollars in 2011.<sup>1</sup> The costs continue to rise even as organizations step up their data security measures, in part because companies are spending more to reinforce current security practices to comply with increasingly stringent data privacy regulations. The Ponemon Institute study also points out that 42 percent of data breaches are caused by insider negligence. Even if organizations have set up sophisticated barriers to protect themselves from external threats, internal threats are real and just as dangerous.

This is a particular challenge where legacy modernization projects are concerned. Many IT organizations mitigate the costs of these projects by turning to offshoring, software as a service (SaaS), or cloud-based offerings to complete and deliver new systems and applications. To take these approaches, they commonly create multiple full-size copies of production data for use in development, testing, and training. Unfortunately, replicating potentially sensitive production data from production to less secure non-production environments exposes it to privileged, knowledgeable, sophisticated, IT-savvy individuals who may not be company employees and may not have good intentions.

The best safeguard against the risks of internal data breaches during legacy systems modernization is a solution that sanitizes production data before copying to non-production test-beds. This method provides testers with quality data sets that looks like production data which is optimal for testing processes while eliminating the possibility that sensitive data will escape less secure nonproduction environments. Such a solution should be designed for rapid implementation and easy scalability—to deliver new systems promptly, to deploy new security policies quickly in response to changing regulations, without the need for coding and to minimize the time needed to respond to audit requests.

<sup>1</sup> Ponemon Institute, 2012 Annual Study: Global Cost of a Data Breach

# Informatica for Test Data Management

Insurers modernizing their legacy systems and applications can turn to the Informatica® Test Data Management solution for proven technology that substantially reduces the risk of data breaches and enhances compliance with data privacy regulations while reducing testing and development costs and time frames. The Informatica Test Data Management solution is a comprehensive, user-friendly way to create test data subsets from production systems and mask sensitive information while maintaining data patterns and relationships for development and testing. It consists of two key components: Informatica Data Subset and Informatica Persistent Data Masking that enables the following processes:

1. Defining and classifying sensitive data, including data and metadata patterns
2. Discovering where that sensitive data lives across databases and applications
3. Defining optimal test data sets to maximize testing productivity and effectiveness
4. Applying filters and policies to create subsets of production data for testing and training purposes
5. Masking data consistently across the systems of an organization to meet various compliance standards while ensuring data patterns are preserved
6. Measuring and monitoring to provide ongoing proof that data has been protected

## Informatica Data Subset

Informatica Data Subset is flexible, scalable software for creating, updating, and securing test data subsets from large, complex databases resulting in smaller, targeted testing environments. Rather than clone entire production data sets, testers can create purpose-built test data sets to maximize defect coverage. These referentially intact subsets of production data dramatically reduce the time, effort, and disk space needed to support testing processes. In the era of big data, Informatica Data Subset can substantially reduce the data set sizes required for Quality Assurance streamlining new application deployments for any insurance legacy modernization initiative.

## Informatica Persistent Data Masking

Informatica Persistent Data Masking allows your IT team to create, maintain, and apply data masking policies to secure the sensitive data in your test and production environments and shield it from unintended exposure. This scalable data masking software provides unparalleled enterprise-wide scalability, robustness, and connectivity to a vast array of databases, masking test and development environments created from production data regardless of database, platform, or location.

The software supplies pre-defined industry and regulatory specific templates and sophisticated, flexible masking rules that allow your IT team to apply different types of masking techniques to various data used in testing, training, and other nonproduction environments. With Informatica Persistent Data Masking, IT organizations can create enterprise-wide data privacy policies while maintaining segregation of duties. Auditors and security officers can define policies while developers, testers, and trainers retain access to contextually rich, functionally intact, and realistic-looking data without impacting application functionality. More importantly, masking personally identifiable information (PII) ensures compliance with local, state and federal data privacy laws.

# Case Study: Medium Enterprise Insurance Company

## Overview

A recent audit of this insurance company's data privacy and protection processes revealed that existing methods for procuring data for testing purposes and manual methods to mask sensitive information were non-compliant with existing PCI, PHI, and Sarbanes Oxley (SOX) data privacy requirements. In addition, these processes resulted in higher testing and development costs for new and existing IT investments and significantly increased their risk of an unwanted data breach.

## Solution

In response, the company adopted Informatica Test Data Management to streamline acquisition of realistic and purposeful data to avoid copying entire data sets from production systems for testing purposes. Packaged data masking policies and rules compliant with PCI, PHI, and SOX were also applied. Masked data was validated against required policies before using it for testing purposes.

## Results

The company realized greater than 50 percent in time savings using Informatica Test Data Management vs. previous methods. The number of defects in testing processes were reduced by 30 percent or more. Usage of Informatica Data Subset increased in time savings over 50 percent to capture optimal test cases.

## Conclusion

To guarantee proper performance and business continuity after migration from retired legacy systems insurers must see to it that new systems and applications are fully tested with minimal quality defects. Rather than use copies of production data, best practices suggest creating masked test data sets that preserve production data patterns while eliminating exposure of sensitive data. Informatica Test Data Management helps minimize the risk of data breaches during development, testing, and training of these new systems by creating functionally intact, secure test data subsets of production data with pattern preservation. Designed to deploy rapidly and scale easily, the Informatica solution offers the flexibility the insurance industry needs to protect sensitive data as it adopts potentially disruptive new technologies and races to comply with new and evolving regulatory standards.



## About Informatica

Informatica Corporation (Nasdaq:INFA) is the world's number one independent provider of data integration software. Organizations around the world rely on Informatica to realize their information potential and drive top business imperatives. Informatica Vibe, the industry's first and only embeddable virtual data machine (VDM), powers the unique "Map Once. Deploy Anywhere." capabilities of the Informatica Platform. Worldwide, over 5,000 enterprises depend on Informatica to fully leverage their information assets from devices to mobile to social to big data residing on-premise, in the Cloud and across social networks. For more information, call +1 650-385-5000 (1-800-653-3871 in the U.S.), or visit [www.informatica.com](http://www.informatica.com).



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