



Tips for successful data migration to Guidewire InsuranceSuite



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1. Insurance Data Migration Business Drivers

1.1 Insurers are Modernizing, but they are wary of Data Migration Risks

Modernization of policy and claims administrations systems has been a top priority for insurers, for more than a decade now. The primary drivers of modernization are:

- Agility in launching new products and services
- Improving operational efficiency of policy and claim administration systems
- Providing world-class experience to customers and channel partners






Replacement through customized prepackaged products like Guidewire has been the preferred approach amongst insurers to

transform their insurance applications and data. Insurers define a definite time-frame for modernizing their systems; however, they are wary of the high risks associated with insurance data migration. Insurance information migration requires unearthing all possible migration scenarios / use cases upfront, accurate translation of coverages, limits, and clauses without causing any operational disruption, like loss of original policy benefits of customers and channel partners, within defined time-frame. Errors in migration can have huge repercussions in terms of disrupted operations, unhappy customers and loss of business.

1.2 Migration - A Critical Need for Successful Modernization

Varied information related to partner, product, policy, billing, claims and agency, that needs to be migrated are spread across multiple, disparate systems; are large in volume and of poor quality / non-compliant, as it has been maintained inconsistently over the years. Added to this complexity, the source and target products may vary in terms of business rules, rating parameters and clauses etc. Owing to all these factors, insurance data conversion is often considered as a complex and challenging scenario, resulting in customers perceiving ~75% of migrations as failures. A typical overrun in a data migration project comes close to 135%. The main reasons for these cost overruns are lack of experience in insurance migration, unfamiliarity with the data models of Guidewire and DataHub, lack of automation in mapping source and target fields and inability of the migration solution to transform the data, due to differences in existing and future products, covers etc.

Figure 1: Typical Issues Underlying Failed Migrations

	<p>Unacceptably long execution time window</p> <ul style="list-style-type: none"> • Lengthy migration execution process • Long blackout window during which policyholders and partners cannot get service
	<p>Failure to resolve inconsistencies in legacy Insurance data</p> <ul style="list-style-type: none"> • Multiple addresses and missing contact data • Undocumented usage: Car license stored in address fields • Creative usage: Dummy converges to increase premiums • No dictionary or documentation on rules
	<p>Failure to understand and convert policy and claims history clearly</p> <ul style="list-style-type: none"> • Policyholders losing bonuses and other earned benefits • An increase in Premiums due to incorrect mapping of rating factors • Addresses of agents, customers and other partners not compliant with the new system • Claims history and payouts not migrated with correct status • Financials – receivable and payable balances not matching
	<p>Failure to satisfy requirements of new systems</p> <ul style="list-style-type: none"> • Mid-term adjustments still being performed in legacy system while migration to policy Center is in process i.e. during pre-renewal, renewal and post renewal • Inability to add riders and clauses to policies in new system • Premium calculations giving wrong results on endorsements • Claims not having correct status
	<p>Failure to satisfy regulatory requirements and auditor expectations</p> <ul style="list-style-type: none"> • Traceability between each source policy element to new system not maintained • Policy level reconciliation of figures not available • Poor governance and measures to protect PHI and PII

With re-platforming, there is a fundamental need for insurers to have continuous access to historical data to service policy holders and perform analytics. Insurance businesses, thus, have a critical need to access past data for their day-to-day operations. Without access to historical data, insurers will not be able to examine policy services and claims' history or take effective underwriting or claims adjudication decisions. Actuaries will find it difficult to design new product offerings, if they do not have access to reliable historical data that reflects the company's claims and underwriting experience. There is, thus, a demand for on-time, within budget and high-quality data delivery for any successful modernization program.



1.3. Automated Migration Reduces Risk and Gets Results faster

It is important to interpret the data correctly from old to new systems. However, the efforts put in to get the migration done right must not compromise the efficiency of the overall migration process. The whole migration process needs to be speeded up by automating manual activities, which would normally require a longer coding and testing period. Automation eliminates errors that typically occur during manual analysis, reconciliation, and reports/ results in a consistent fashion. It cuts down the overall time required to execute data migration and reduces the downtime during the cutover to the new system. It simplifies capture of reconciliation metrics and statistics that are an output of the migration process. A migration health dashboard helps pinpoint the root cause of leakages and losses in the migration processes, early on in the development process.

1.4. Next Generation Automation Solution – Metadata-based Insurance Migration Engine

Though simple automation does largely eliminate the risk of migration errors introduced by manual coding, thus, improving efficiency, also it does not address the biggest challenge faced by insurance migration project managers, i.e. mappings and requirements discovered later in the delivery cycle. This, unfortunately, is a common occurrence when migrating data from old systems because legacy data tends to throw up surprises. Users tend to use these systems in a way that they were never intended to work, like using an umbrella policy screen to create package policies, creating dummy coverages to simulate a discount, manually raising invoices to increase / decrease the premium and so on. Hence, there are usually many mappings that can only be identified by testing data and these requirements tend to surface later in the delivery cycle. When such new requirements are discovered late in the migration development cycle, it can lead to large scale rework, which could jeopardize the overall delivery timeline. This is where migration engines that rely on metadata-based rules turn out to be stronger than vanilla automation engines.

Over the years, working on Insurance migration projects, our consultants have experienced that metadata-based automation engines are very flexible and are capable of absorbing changing requirements easily. To simplify, a metadata-based automation engine automates the generation of migration code, by interposing an insurance metadata layer, between the data and migration tools. The insurance metadata layer reduces disconnect between business and IT, leading to better quality mapping requirements, because it describes technical fields in plain language (For example POLEFF is described as Effective Date of Policy). The engine is very well suited for projects that require fast and correct data translation, as it can regenerate and re-execute code when needed, resulting in an output that is correct and delivered on time.

2. iConvert+ - Proven Approach for Automated Insurance Migration at its best

The problems of data migration in the industry are common across the board. Yet, there are a few automation solutions to insurance data migration. Many insurance data migration projects build migration scripts afresh as these projects are often viewed as one-off projects. There are no insights that can be gleaned from past experiences and problems keeps recurring. As a result, data migration being on the critical path of migration, extends the overall time required to complete the modernization program. Keeping these factors in mind, Hexaware had built a solution accelerator iConvert+ that leverages metadata and automation to deliver error-free insurance data migration. In the below sections, we will examine the benefits of implementing a meta-driven automation.

2.1 iConvert+ - Faster and Quicker Policies and Claims' Migration

Hexaware realized that by producing outputs quickly, users get more time to explore the new system and get ready for the cutover than they would in a more traditional migration approach. In the traditional set up, the complete data-set is available only at the end of the implementation cycle. The metadata driven approach that we designed, helps in arriving at the correct translation of legacy data, including; address cleansing, automated reconciliation of premiums and reserves, and policyholder deduplication.

The iConvert+ solution has been used with equal success in the migration of data from custom packages and bespoke policies and claims applications for Property & Casualty (P&C) to Guidewire suite of products. iConvert+ is compatible with various migration strategies like:

- Conversion on renewal for PolicyCenter using Guidewire DataHub, as staging area or directly with the use of JAXB accelerator
- Loading through a staging layer - more common in migration to Claim Center, Billing Center and Contact Manager

2.2 iConvert+ metadata – Effective use of Business Stakeholder's Time

Traditionally, data migration has always been considered as a technical project and hence treated as an exercise to be executed by the technical staff. However, experience shows that getting business users involved early in the migration process is more beneficial to the project. The metadata approach has proven to be very effective, in the efficient engagement of business and the efficient usage of their time.

The heart of the success of the metadata layer is the Insurance Common Source Template. It is a business entity layer that describes data in insurance business terms and facilitates mapping of insurance business features, rather than in terms of fields and columns. This simple expedient closes the gap between technical and business team members. It leads to better capture of requirements, easier configuration of migration scripts, better communication between teams. All these have led to quicker results and a higher percentage of successes in insurance migration.



Purely Technical Approach		iConvert+ Metadata Approach
Data Migration	VS.	Insurance Portfolio Conversion
Record Counts		Count of Policies, Claims
Record Sums		Total Gross Premium, Total Net Premium, Reserves
Lookup Values		Rating & Underwriting Factors
Contacts		Policyholders, Brokers, Claimants
Financial Totals		Payables, Receivables and Reserve Matching
Valid foreign keys		Endorsable policies and adjustable claims
Technical Project		Clear view of solution for both IT and Business

2.3. iConvert+ - Delivered by Insurance Migration Experts as-a- Service

The probability of data migration success is low, when performed by developers with no prior experience and understanding of insurance migration, even when best-of-breed automation solution is used. This stresses the importance of conversion experts, with deep domain and migration expertise. Hexaware's iConvert+ eliminates this risk by offering insurance migration as-a-service.

2.4. iConvert+ - Aligned to Organization Objectives

For any data migration to be successful, the migration experts should have a deep understanding of insurance data and business processes and the activities within these business processes. In our modernization programs, a proven approach for envisioning success is that our conversion experts aligned implementation with modernization program priorities and thoroughly understood the rollout strategy and split migration tasks into components that reflect the split of deliverables by business area. Since iConvert+ is metadata and parameter-driven, it can easily be configured to deliver data in the order the rollout is planned.

Migration Strategies based on Organizational Priorities

Big bang	On Renewal	By line of Business	By Product Line	By distribution channel
<p>All data in one go</p> 	<p>All policies on renewal month</p> 	<p>  Personal  Commercial  Specialty </p>	<p> Motor  Car  Bike  Fleet  Property - BOP  Worker Compensation </p>	<p>  Agent  Broker  Direct </p>

A process-based organization of deliverables

Account Management	Submission	Underwriting	Policy Service	Financials	Claims Management
Insured	Risk Information	Limits	Quotes	Premiums	Accident details
• Individuals	Coverable	Rating Information	Endorsements	Instalments	Injury details
• Organizations	Coverage Details	Loss history	Renewals	Commissions	Salvage
• Associations				Reserves	Subrogation
Agents				Claim Payout	
Brokers					
Vendors					

2.5. iConvert+ -Bringing Transparency to the Process

Hexaware clearly understands that clients need to see tangible results, at regular intervals and be certain that the modernization or the consolidation program is on track. We discovered that by installing and executing the migration engine inside the clients' network, a complete visibility of the process could be visualized.

The metadata layer enables the clients to 'see' the migration process and check outputs in their own network, in common insurance terms. All these activities can be carried out, without the hassles of learning the tool. Hexaware's best practices and Guidewire data migration services are delivered through iConvert+, as white-box service.

3. Six-step Agile, Iterative Approach for Insurance data conversion

Hexaware has developed a six-step iterative approach for insurance data conversion, using its 15 years of experience in successfully delivering complex data conversion projects, and set of automation tools. The company provides an end-to-end Insurance Data Transformation Solution, iConvert+, with a set of automation accelerators, for each stage of conversion. The iConvert+ solution is specifically customized for Guidewire and has various components like data profiler, hexarule, automaton, data recon to automate various stages of migration. The agile, iterative approach ensures that a set of business components are transformed and converted at regular intervals, to make the validation process much easier.

Hexaware recommends a set of activities during each phase of the migration process for a successful data migration, as listed below:

Acquisition

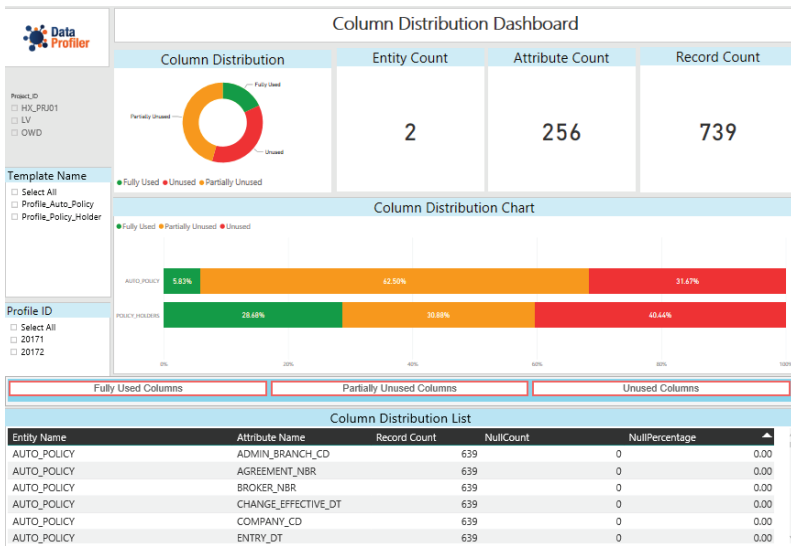
- Plan early for various migration environments e.g. development, migration, integration, acceptance
- Acquire legacy data in as-is format and load it into staging area
- Use metadata approach to convert all technical names to business names

iConvert+ has a unique capability to acquire legacy data and is supported with a metadata engine that helps in converting all technical names to business names

Discovery:

- Profile data to get a complete understanding of variations and volume to define the scope and complexity of conversion
- Understand differences between current and to-be product design and business rules
- Define the most efficient strategy to walk through the conversion journey e.g. automated conversion for high volume cases, manual conversion for low volume and complex products, robotics-led conversion for cases needing entry from front-end of PolicyCenter, ClaimCenter
- Choose a proven methodology and a solution to minimize risk and secure cost
- Form a team of conversion experts and involve business users throughout the journey
- Align your data conversion journey with Guidewire package configuration





The DataProfiler component of iConvert+ has predefined rules to profile insurance data. It also provides the ability to configure new rules and customize existing ones. The DataProfiler component also provides pre-built dashboards to summarize the profiling results.

Cleansing

- Identify data quality issues – duplicate customers, bad addresses, missing fields etc.
- Discuss with business to find solutions to resolve the above issues
- Resolve data quality issues in source system

The HexaRule component of iConvert+ has predefined rules to identify issues in insurance data and cleanses them. It also provides an ability to configure new rules and customizes existing ones. It also provides pre-built dashboards to summarize the quality issues in data and drills down to the individual policy or claim level.

Transformation and Load

- Be agnostic to the source and target platforms
- Map the business features, source and target data elements i.e. legacy tables with Datahub TRF tables
- Work with data governance team to communicate the customization needed to DataHub
- Customize transformation and migration scripts i.e. scripts to load data in TRF tables
- Work with Datahub team to implement the TRF MIRROR to Datahub TRF table load.
- Work with DataHub team to customize scripts to migrate data from TRF to CS tables of DataHub
- Move historical data in the Datahub for future reference. Dynamic dashboards can be built with access to the historical data
- To execute a successful data transformation, “iterate-iterate-reiterate” till the successful migration of data to PolicyCenter or ClaimCenter

Rule_Criteria	Rule_Description	Rule_Table_Name	Rule_Column_Name	Score
Compound Data Fields	Any dates should not be before first Licensed date	Auto Operators	[DRIVERS_LICENSE_O...	100.0
	For Mamed Operators Name should be combination of	Auto Operators	[NAME]	97.9
	For the same Policy, Birth dates in Auto and Property	Auto Operators	[BIRTH_DT]	94.7
	Lien holder Name - should be combination of First and	Auto Lien Holders	[NAME_1]	97.8
	Name should be combination of all policy holders	Auto Operators	[NAME]	100.0
	Property Base Policy_type_cd cannot be CAP - Comm.	Property Policies	[POLICY_TYPE_CD]	100.0
Duplicates	Duplicate data in Auto SEFS details	Auto Endorsements	AGREEMENT_NBR	97.8
	Duplicate data in Prop Base details	Property Policies	AGREEMENT_NBR	99.2
Encoded Data	PSN policy Types must have both Auto and Home agr.	Auto Policies	[POLICY_TYPE_CD]	100.0
	PUM policy Types must have both Auto and Home agr.	Auto Policies	[POLICY_TYPE_CD]	100.0
Formatting	Policy Holder's Name should have alphabetic characte.	Auto Policies	[POLHLD2_FIRST_NM]	100.0
	Validate Canadian Postal Code format	Auto Lien Holders	[POSTAL_CD]	100.0
		Auto Operators	[POSTAL_CD]	100.0
		Property Locations	[POSTAL_CD]	100.0
		Property Mortgagees	[POSTAL_CD]	100.0
		Vehicles	[POSTAL_CD]	100.0
Free Form Text Files	Address Line 1: should NOT be like O/A, O/B, D/B	Auto Operators	[ADDRESS_LINE1]	99.9
	Address Line 1: should not start with text DBA, AKA, A...	Auto Operators	[ADDRESS_LINE1]	100.0
	Address validation when Name spilling into address pla...	Auto Operators	[ADDRESS_LINE1]	99.8
	Any Po box address should start with PO box number and line2 should end with the Province code	Auto Lien Holders	[ADDL_INTEREST_AD...	99.8
		Auto Operators	[ADDRESS_LINE2]	99.6
		Property Mortgagees	[ADDRESS_LINE2]	99.7
		Property Policies	[POLHLD1_ADDRESS...	99.6
	Encoded Data validation	Auto Lien Holders	[ADDRESS_LINE3]	100.0
	First Name Last Name should be available	Property Policies	[POLHLD2_LAST_NM]	99.7
	Foreign Address Postal Code/Validation	Auto Lien Holders	[ADDL_INTEREST_1_AD...	100.0
	Foreign Address Validation	Property Mortgagees	[ADDRESS_LINE2]	99.9
	General Delivery Address Validation	Auto Lien Holders	[ADDL_INTEREST_1_AD...	100.0
		Property Mortgagees	[ADDRESS_LINE1]	100.0
		Property Mortgagees	[ADDRESS_LINE3]	100.0
	General Delivery Address Validation	Auto Lien Holders	[ADDRESS_LINE3]	100.0

Seq No	Table Name	Field Name	Class Type	Table Name	Column Name	Data Type	SOURCE
1	ibbo_jm_Partner_Target	BIRTHDATE	date	ibbo_jm_Partner	BIRTHDATE	date	SOURCE
2	ibbo_jm_Partner_Target	CITY	varchar	ibbo_jm_Partner	CITY	varchar	SOURCE
3	ibbo_jm_Partner_Target	COUNTRY	varchar	ibbo_jm_Partner	COUNTRY	varchar	SOURCE
4	ibbo_jm_Partner_Target	EMAIL	varchar	ibbo_jm_Partner	EMAIL	varchar	SOURCE
5	ibbo_jm_Partner_Target	EXTDCHNO	varchar	ibbo_jm_Partner	EXTDCHNO	varchar	SOURCE
6	ibbo_jm_Partner_Target	FAX	varchar	ibbo_jm_Partner	FAX	varchar	SOURCE
7	ibbo_jm_Partner_Target	FIRSTN	varchar	ibbo_jm_Partner	FIRSTN	varchar	SOURCE
8	ibbo_jm_Partner_Target	FIRSTNAME	varchar	ibbo_jm_Partner	FIRSTNAME	varchar	SOURCE
9	ibbo_jm_Partner_Target	HOUSE_NO	varchar	ibbo_jm_Partner	HOUSE_NO	varchar	SOURCE
10	ibbo_jm_Partner_Target	HOUSE_NO2	varchar	ibbo_jm_Partner	HOUSE_NO2	int	SOURCE

The Metadata based automation engine of iConvert+ comes with prepackaged set of validation, cleansing and transformation rules, that can be leveraged without any customization. The intelligent mapping feature of iConvert+ enables mapping of the source fields to the TRF MIRROR tables, which is mirror copy of TRF of Datahub. The configuration of the TRF MIRROR tables and basic transformation rules has already been done in automaton. The Datahub TRF MIRROR table will be a source for Datahub. Once these are customized to actual requirement, the transformation and conversion will be carried out in an automated way

Reconciliation

- Validate the conversion for data points such as number of policies / submissions, claims, transformation rules, business rules, premiums, reserves besides other financials. This is to ensure quality of data migrated
- Validate the PolicyCenter renewal functionality and ClaimCenter functionality on migrated data
- Test the migration on full volume of source data to measure the performance



Hexaware recommends the below aspects of converted data to be validated

- **Reconciliation Testing:** iConvert+ provides a completely automated reconciliation utility, DataRecon, which compares source and target data, while taking into consideration the transformation applied and provides a set of exception and reconciliation reports highlighting the discrepancies. This significantly reduces the effort involved in building and deploying a testing and reconciliation framework.
- **Functional Testing:** With its extensive expertise in end-to-end Guidewire testing and its ready-to-use suite of test scenarios, Hexaware provides complete automation testing support for data verification like:
 - a) Comparison of premiums for renewals and renewal endorsements of equivalent policies in source and target systems
 - b) Validation of claims adjustments in converted claims
 - c) Validation of reserves and so on
- **End-to-End Functional and Integration Testing:** This is required to validate the end-to-end process on converted data. It is essential to test the sanctity of converted data not only in the target system but also in the internal and external interfaces

iConvert+ has rich features that have been utilized by Insurers in their Policy and Claims migration to Guidewire suite of products

Platform Agnostic	Can handle data from any source
Effective Data Profiling	Discovers data issues at an early stage
Insurance Metadata Layer	Exposes legacy data in business terms for easy mapping
Rule-driven Cutoff Engine	Segregates out the old data that is not required in new system
Cleaning Rules Engine	Automates resolution of data issues
Transform Code Generator	Automated mapping, less hand coding, easy handling of changes in mapping rules
Flexible Architecture	Accommodates existing ETL assets & web services
Conversion Dashboard	End-to-end tracking, insight into progress or errors, full audit trail
Automated Testing	Quick validation based on mappings
Automated Regression	Automated validation of business scenarios



4. Value delivered

Hexaware solution approach for data migration to Guidewire suite of products is based on 4 key pillars:

- Tool driven automated approach using **iConvert+**
- Certified team with experience in **migrating Insurance data** to Guidewire suite of products
- Dedicated **Guidewire Practice** with proven expertise in Guidewire suite of products
- **Insurance domain** knowledge with certified Industry experts in the team

With the above pillars forming the base of our data migration approach; Hexaware delivers the following business benefits to Insurers in their migration journey:

- **Faster Conversion:** End-to-end automation of data migration and testing enabling 30% reduction in conversion effort
- **Lower TCO** : Outcome-based or fixed pricing model with no license cost of iConvert+ and a predetermined time commitment from your SMEs
- **Improved Quality** : Guaranteed on-time, error-free conversion of all the contacts, policies, claims and financials

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About Hexaware

Hexaware is the fastest growing next-generation provider of IT, BPO and consulting services. Our focus lies on taking a leadership position in helping our clients attain customer intimacy as their competitive advantage. Our digital offerings have helped our clients achieve operational excellence and customer delight by 'Powering Man Machine Collaboration.' We are now on a journey of metamorphosing the experiences of our customer's customers by leveraging our industry-leading delivery and execution model, built around the strategy— 'Automate Everything, Cloudify Everything, Transform Customer Experiences.'

We serve customers in Banking, Financial Services, Capital Markets, Healthcare, Insurance, Manufacturing, Retail, Education, Telecom, Professional Services (Tax, Audit, Accounting and Legal), Travel, Transportation and Logistics. We deliver highly evolved services in Rapid Application prototyping, development and deployment; Build, Migrate and Run cloud solutions; Automation-based Application support; Enterprise Solutions for digitizing the back-office; Customer Experience Transformation; Business Intelligence & Analytics; Digital Assurance (Testing); Infrastructure Management Services; and Business Process Services.

Hexaware services customers in over two dozen languages, from every major time zone and every major regulatory zone. Our goal is to be the first IT services company in the world to have a 50% digital workforce.

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Safe Harbor Statement

Certain statements in this press release concerning our future growth prospects are forward-looking statements, which involve a number of risks, and uncertainties that could cause actual results to differ materially from those in such forward-looking statements. The risks and uncertainties relating to these statements include, but are not limited to, risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, intense competition in IT services including those factors which may affect our cost advantage, wage increases in India, our ability to attract and retain highly skilled professionals, time and cost overruns on fixed-price, fixed-time frame contracts, client concentration, restrictions on immigration, our ability to manage our international operations, reduced demand for technology in our key focus areas, disruptions in telecommunication networks, our ability to successfully complete and integrate potential acquisitions, liability for damages on our service contracts, the success of the companies in which Hexaware has made strategic investments, withdrawal of governmental fiscal incentives, political instability, legal restrictions on raising capital or acquiring companies outside India, and unauthorized use of our intellectual property and general economic conditions affecting our industry.

