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Changing the Rules of the Game: An Adaptive Approach to Core System Migrations

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Executive Overview

Modernizing policy administration systems is the top priority IT project for life insurance and annuity carriers in 2011, according to industry analysts. An adaptive, rules-based policy administration system can empower an insurance company's business and IT departments to collaboratively create and rapidly launch new, differentiated products, enhancing how they service customers and sales channels and reducing risk while better managing the business.

Adaptive insurance policy administrations systems show great promise in overcoming the inherent limitations of inflexible legacy systems, while mitigating the risk of the conversions process. Despite the significant benefits that can be gained, converting from an existing legacy policy administration system to a new platform also carries risk.

This paper discusses the concept of "adaptive migration," outlining how a new approach can change the game for insurers undertaking a core migration project. An adaptive approach combines a proven data migration and conversion methodology with a highly flexible, configurable, rules-based policy administration system—offering the business benefits of a modern core system while significantly reducing the risk involved in migration and data conversion. The paper also examines the significant cultural and technological cost factors that play into a core system migration, and makes recommendations on best practices to

.

Modernization of Core Systems: Mission Critical for Insurers

Policy administration is a mission-critical core platform for life insurance and annuity carriers. The ability to rapidly enter new markets and exit unprofitable ones, while better servicing customers and distribution channels is critical to both sustain and drive growth. Yet, insurers are often constrained by inflexible and often decades-old policy administration systems that impede their ability to rapidly create new products or adapt existing ones, change business processes, or fully takes advantage of new market opportunities.

According to insurance industry analyst and advisory firm Novarica, growth remains a top business imperative for insurers, followed by ease of doing business with customers and their distribution channels and driving operational excellence. To support these imperatives, replacement or extension of policy administration systems is cited as the top IT priority for life and annuity carriers in 2011.[1]

Data conversion can be a daunting process for many insurers when deciding to modernize, in particular when consolidating from multiple, disparate legacy policy administration systems to a single new platform. Migrating from a legacy system requires a well thought-out approach that builds on the industry's best thinking from previous modernization efforts and takes data migration off the critical path by leveraging proven methodology and tools to capitalize on the new system's capabilities.

Key Considerations: Cultural and Technical Cost Factors

Modernization strategies are subject to many factors and are unique to each carrier. Before embarking on such a project it is critical to consider the associated cultural and technical cost factors of the data migration and conversion process, and plan accordingly.

Cultural Cost Factors

- **Data mapping experience** – What resources are available internally or externally, and what is the depth of their experience? Identifying and allocating experienced team members with technical and business knowledge is critical. Any additional time that is required to on-board and/or train resources can delay the project and result in additional costs.
- **Effective and timely issue resolution and escalation process** – Poor issues management can increase project costs. An agile methodology that includes protocols for the effective and timely resolution of issues can streamline the process and encourage an environment of collaboration.

[1] Novarica, CIO Insurance Summit, "Life and Annuity Market Trends and Current Issues," October 2010.

"A core systems replacement is not an information technology project, it's an organizational transformation, or at the very least, an organizational evolution. These projects take tremendous amounts of business resources for design, development and user testing. As agile development methodologies become more common, the demand for active participation of business resources in these projects becomes critical. Core systems projects that are viewed as IT issues are doomed before they fail."

— **Matt Josefowicz,** Novarica, "Policy Administration Projects Top IT Insurers 2011 Priority Lists," *Insurance Networking News*, January/ February 2011

- **Scope management** – Lack of project planning that includes dedicated resources, deliverables and timelines, or an unplanned expansion of the project once it is underway can result in "scope creep" increasing workload and costs.
- **Availability and quality of conversion subject matter experts** – The lack of resources, from test personnel to business analysts to technical experts, without deep knowledge of the existing legacy systems, business processes and the new system's capabilities can further delay the project.
- **Project communication** – What processes are in place to ensure interactive dialogue throughout the migration and conversion? Lack of communication among all parties involved, from the migration to the configuration team, increases time and costs associated with gathering required information (e.g., policy, plan or customer data, business process flows, etc.).
- **Corporate project commitment** – Finally, a lack of executive level commitment and support can negatively impact the quality of allocated resources and subject matter experts. This in turn can adversely impact the cost of gathering required information and success of the project.

Figure 1. Key Considerations: Cultural Cost Factors

Technical Cost Factors

- **Complexity and number of products** – A high volume of products and the associated complexity of those products and riders—for example, a complex annuity product with multiple features and riders—will require additional work throughout the conversion process, thus increasing resources and costs.

- **Number and complexity of systems** – The number of systems involved in the migration and conversion process, whether it is one or more legacy systems that are being consolidated down to a single, new policy administration system, is a critical consideration. The associated division and consolidation of data residing within these systems can further add to complexity.
- **Number of functional areas to be converted** (e.g., policy, product, agency) – Each functional area that is converted increases workload requirements and costs, and should factor into the project planning and execution.
- **Number of test and production implementations** – More implementations means more repetition resulting in more costs.
- **Source data quality and integrity** – Poor data quality adds to costs of data cleansing, as well as to the complexity of conversion mapping. Accurate customer, policy and transaction data is critical. For example, if moving from a policy-based to a client-based system, the team should analyze what data is required to have a master client record or a single view of the customer. For policies, determine what data is available for various lines of business, what number of plan codes exists, and also what level of data will be migrated (e.g., closed book/s versus current issue). From a transaction perspective, if the policy history is to be converted, assess how much of that data is reversible, particularly if the new system enables automatic undo/redo processing for reversals.
- **Amount of history to be converted** – When analyzing and sourcing data for migration it is critical to determine how far back to go historically (e.g., point-in-time, from inception, etc.) The volume of historical data and conversion of each type adds to the workload, resource requirements, time and costs.
- **Interfaces impacted** – Each impacted interface requires targeted testing, increasing conversion complexity and costs.
- **Data volume** (e.g. policy counts) – Data volume increases production conversion time and more complex processes are required to stay within the scoped conversion timeframes.

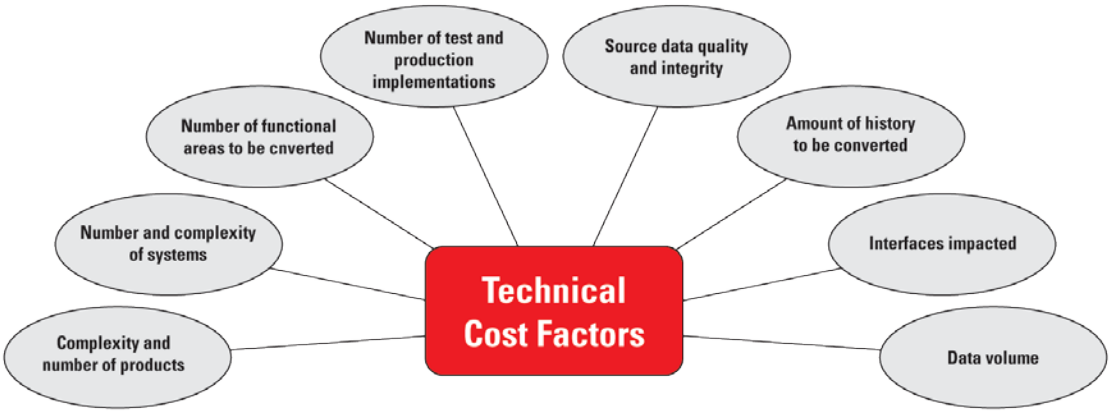

Figure 2. Key Considerations: Technical Cost Factors

"The critical aspect to understand and communicate regarding conversions is that the data is owned by the business, and the business trusts IT to be an effective caretaker."

— Craig Beattie and Mike Fitzgerald, Novarica, "Controlling the Risk in Insurance Data Conversion Issue and Remedies," November 2010

Game Changer: A New Approach to Insurance Data Conversions

Oracle Insurance and Universal Conversion Technologies (UCT) have developed a new approach, known as "adaptive migration," to help insurers address these considerations. There are three criteria that a migration methodology must meet in order to be considered "adaptive."

First, in an adaptive migration methodology, the data must easily migrate into dynamic data stores, while also automating data sharing among those involved with the conversion process. This allows the configuration team, which creates the business rules, to benefit from the migration team's source system knowledge. In parallel, the migration team benefits from the configuration team's knowledge of the data relationship between the target and source systems.

Second, it is critical that an adaptive methodology enable the insurer to retain valuable existing business processes, while replacing ineffective ones. It must be flexible enough to support all common migration options. This includes the ability to migrate data from a specific point-in-time, current date or policy issue, as well as from any subset of the available policy and financial history data—across all product lines.

Finally, the migration methodology must be readily verifiable. The entry of migrated data must be verified and processed using common business rules, and the migration project should cause minimal disruption to the business. This will help ensure the success of the project, while helping to mitigate the risks and the costs.

Oracle and Universal Conversion Technologies (UCT) have developed an adaptive migration methodology that combines Oracle Insurance Policy Administration for Life and Annuity with UCT's data conversions methodologies and tools. Adaptive migration mitigates the risks associated with system consolidation by taking data conversion off the critical path. It leverages the expertise of the insurer's business and IT resources, and allows the insurer to more quickly realize the benefits of a modern, adaptive policy administration system.

Leveraging Proven Methodology

Traditional software development and methodologies often fail when applied to data migrations. Precise migration requirements, which are the foundation for traditional methodologies, are notoriously difficult to identify when migrating from systems with long histories, proprietary internal, lack of subject matter expertise, and/or inaccurate documentation.

In contrast, an adaptive migration approach is flexible and anticipates discovering new requirements, which shortens the project timeline and maximizes conversion accuracy. The adaptive methodology is different because it emphasizes the role of the business analyst and minimizes the role of traditional IT programmers; makes data visible early in the lifecycle for accurate conversion; and automatically creates documentation.

One of the first phases of the process is data analysis and auditing. In this phase the business analysts use reporting features and rules to create code that highlights data anomalies or any unexpected data characteristics. Since this is the first phase, data cleansing can be started immediately and conversion data maps can correctly handle all data permutations the first time.

A key benefit of this methodology is that it results in the automatic creation of documentation. At the end of the conversion project, all of the business rules are encapsulated in a set of data maps. Each data map handles the conversion of a subset of business data that is easily understood by business users. Since the data maps are used to automatically create source code modules the process is well-documented.

Leveraging Tools That Automate the Process

Leveraging tools that help to automate the process can bring significant advantage to insurers. UCT's Data Conversion Architect (DCA) is a Web-based collaboration tool that complements the adaptive migration approach by automating many common tasks within the conversion lifecycle.

The tool's primary role is to allow team members to work collaboratively to collect simple business logic expressing auditing, conversion, and balancing activities. When the logic is mature, DCA turns it into complex source code that handles data type conversions, detects and reports errors, and is well structured and ready to be compiled and executed. One line of logic may generate many lines of source code and the logic serves as excellent documentation for walkthroughs during the conversion process.

DCA also includes extensive reporting features for migration accuracy assessments. Code generated by DCA automatically checks for errors and presents messages in well-formatted reports, which provide the ability to drill down into the data from project to map to policy to logic line.

Using an automated, tools-based method versus a manual approach (the common practice for most conversions) promotes collaboration and eliminates the need for a costly and error-prone communications cycle between the business analyst and IT programmers. UCT's DCA tool includes auditing features that expose source data, balancing features that measure conversion accuracy, and messaging features for improved communications. This makes it easier to evaluate the success of the conversion.

Leveraging an automated tool can enable insurers to reduce their conversion timeframes. The DCA tool automates common tasks, while eliminating time consuming communications between the business analyst and programmer. This allows parallel development of the rules-based system preparation and data migration tasks to occur, which ultimately saves time and reduces costs. Detail-level balancing also reduces testing requirements and costs.

"Data migration doesn't stop with the initial conversion. It doesn't stop until you can prove that the data will process successfully on the new platform. It is critical to take the extra step, so there won't be any surprises when the carrier pulls the trigger."

— Dan O'Hara, Founder and Chief Executive Officer, Universal Conversions Technology (UCT), October 2010

Leveraging a Rules-Based Policy Administration System

The highly flexible architecture of a rules-based policy administration system, such as Oracle Insurance Policy Administration for Life and Annuity, enables insurers to take a new adaptive approach during the conversions process—unlike traditional projects that involve conversion from one hard-coded system to another. Converting to an adaptive system with an open data model offers unparalleled advantages not available when converting to a hard-coded system that has fixed formats. Because the business rules in the system are separated from the source code and are transaction-based, virtually all changes can be configured during the conversion process using business rules—and reconfigured later, if changes are required once the system is in production.

In contrast, hard-coded systems with defined data models require heavy customization and hard coding of processes and transactions by IT programmers. Additional modifications also are highly resource-intensive and can further delay project timelines, while increasing the risk and cost of the migration and conversion.

The ability to reuse rules created during the conversion to support business processes once the system is in production is another key benefit. This enables insurers to support existing business process flows from day one and get a jump start on configuring new products aligned with business processes.

Key Benefits of Adaptive Migration

Insurers can realize several benefits by deploying an adaptive migration approach. These include reducing deployment timelines and costs by allowing parallel work efforts (as discussed above) as well as decreasing the workloads of the configuration and migration teams. The ability to expose data-related problems early in the deployment cycle allows for corrections to be made for improved efficiency. Further, using a proven tool like UCT's DCA also ensures comprehensive and reliable data sharing through automation, while verifying the integrity of the loaded data using front-end validation services. All of this contributes to reduced risk of project overruns, mistakes or failure.

Conclusion

Insurers realize they can no longer continue to rely on aging and inflexible policy administration systems that lock them into legacy business practices and impede their ability to sustain and fuel growth. Modernizing their critical core platform with an adaptive policy administration system, combined with

an adaptive migration approach, can help insurers achieve this objective. Insurers who take an adaptive migration approach will not only reduce the risk of their core system replacement project, but be well positioned for game changing success—both during the conversion and after their new policy administration system goes into production.

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About Oracle Insurance

Oracle believes that insurers should be able to leverage technology to help transform their business. Oracle Insurance provides adaptive, rules-drive systems that enable insurance companies to change business processes as their business needs change. This positions insurers to readily respond to dynamic market conditions and take advantage of new opportunities as they arise.

For more information about Oracle Insurance, please visit www.oracle.com/insurance, contact us by email at insurance_ww.oracle.com or call 1.800.735.6620 to speak to an Oracle Insurance representative.

About Universal Conversion Technologies (UCT)

Universal Conversion Technologies (UCT) is the global technology leader providing software and services in support of data migrations and related data integration needs for the financial services marketplace.

For more information on UCT visit www.uctcorp.com or call 1.972.717.5690.

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