Deloitte.

Implementing an LDTI compliance solution that drives long-term business value

As life and annuity (L&A) insurance companies develop data and reporting solutions to implement Accounting Standards Update (ASU) 2018-12, Long Duration Targeted Improvements (LDTI), they should consider an approach that enables LDTI compliance, supports future business data needs, and drives long-term business value.

After decades of underinvesting in data and systems, some L&A insurers struggle to provide seamless access to the holistic data required to explain business results and produce forward-looking strategic insights. These companies tend to be challenged by a patchwork of legacy administration systems, disparate data stores, complex and undocumented extract, transform, load (ETL) processes, cumbersome manual business processes, and significant data accessibility limitations. Absent extensive systems architecture improvements, these challenges are likely to persist throughout and beyond LDTI implementation.

Contents

LDTI technology impacts and opportunities

In August 2018, the US Financial Accounting Standards Board (FASB) issued ASU 2018-12, which amends the accounting model under US generally accepted accounting principles (GAAP) for certain long-duration insurance contracts such as life insurance, disability income, long-term care, and annuities. Specifically, the FASB LDTI guidance seeks to improve the existing measurement, presentation, and disclosure requirements for traditional and limited-payment LDTI contracts.[1]

Developing data and reporting solutions to meet the standard's new proposed January 1, 2023, effective date (for most public companies) will be a multiyear effort;[2] however, it presents an opportunity for insurers to create a future-oriented systems architecture to better leverage data as an asset and drive long-term business value. As insurance companies outline their approach to LDTI implementation, they should pose several framing questions:

- **What are the solution options?** There is no off-the-shelf or one-size-fits-all LDTI solution; each company's response depends on its products, data availability, and the system architecture in place for the end-to-end reporting process. One option growing in popularity is "smart compliance," which maximizes an insurer's prior finance and actuarial investments and enables value extraction from new information generated during the enhanced reserving and reporting process to generate business value. Other design considerations include the up-front investment, ongoing run rate of producing US GAAP, and desired level of data to satisfy business insight demands.
- **What actuarial model output needs to be retained, and where should the data be stored?** There are many potential ways to store and analyze actuarial model output, from the model itself, to a model output repository, to a subledger-type solution. Companies will need to balance desired cost, control, and business-friendly access to granular model output (beyond cohorts and disclosures) to enhance insight-driven analysis.
- **How can LDTI implementation extend beyond compliance to enhance overall business capabilities and drive long-term value?** Investments in scalable data and technology capabilities to support current and future regulatory compliance also should address evolving needs for increased business insight to generate current and future business value.

Implementing LDTI will require insurance companies to source new data feeds as inputs to actuarial models and disclosure processes. Organizations also will need to design solutions to store, control, and analyze actuarial model output within the financial reporting process. In addition, some companies may want to simplify and/or enhance their current legacy data sourcing processes as they seek to increase the frequency and automation capabilities within their experience study process.

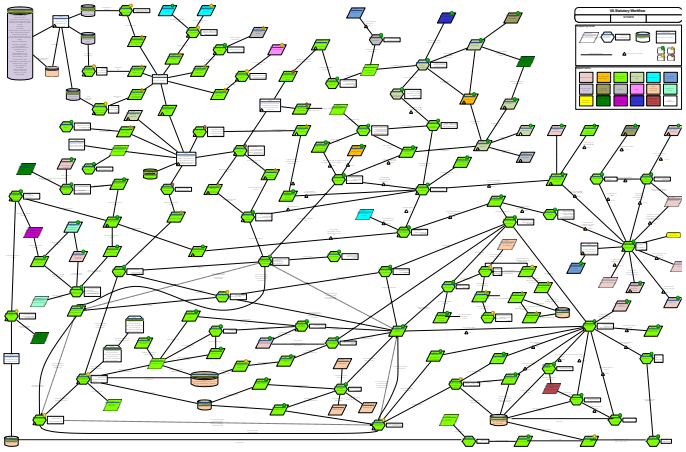
LDTI compliance requires that premium and claim data be incorporated into the valuation process at a more granular level than what is typically available from ledger data. LDTI requires insurers to capture and disclose account balances by crediting rate and guaranteed rate, as well as to present full account value rollforwards. Additionally, actuarial systems output repositories will need to increase capacity to control, retain, and report model results in a granular way across multiple model runs to support the disclosure process, as well as management's overall analysis of change.

As companies design and implement solutions to address these requirements, they will need to integrate them into their existing systems architecture and identify ways to connect the future-state LDTI process to underlying administration systems, claims systems and, ultimately, to reporting tools and the ledger. For many insurers, integration is likely to be a complex, time-intensive, and expensive undertaking, especially if the current-state architecture is mired in legacy systems—black-box processes built over decades of incremental code enhancements—that are complex and cost-prohibitive to unwind. For example, sourcing data can be challenging given the number of underlying administration systems (each with unique data sets, definitions, and limitations) and the number of unique ETL processes required to access the data.

Data-centric solution supports compliance and future needs

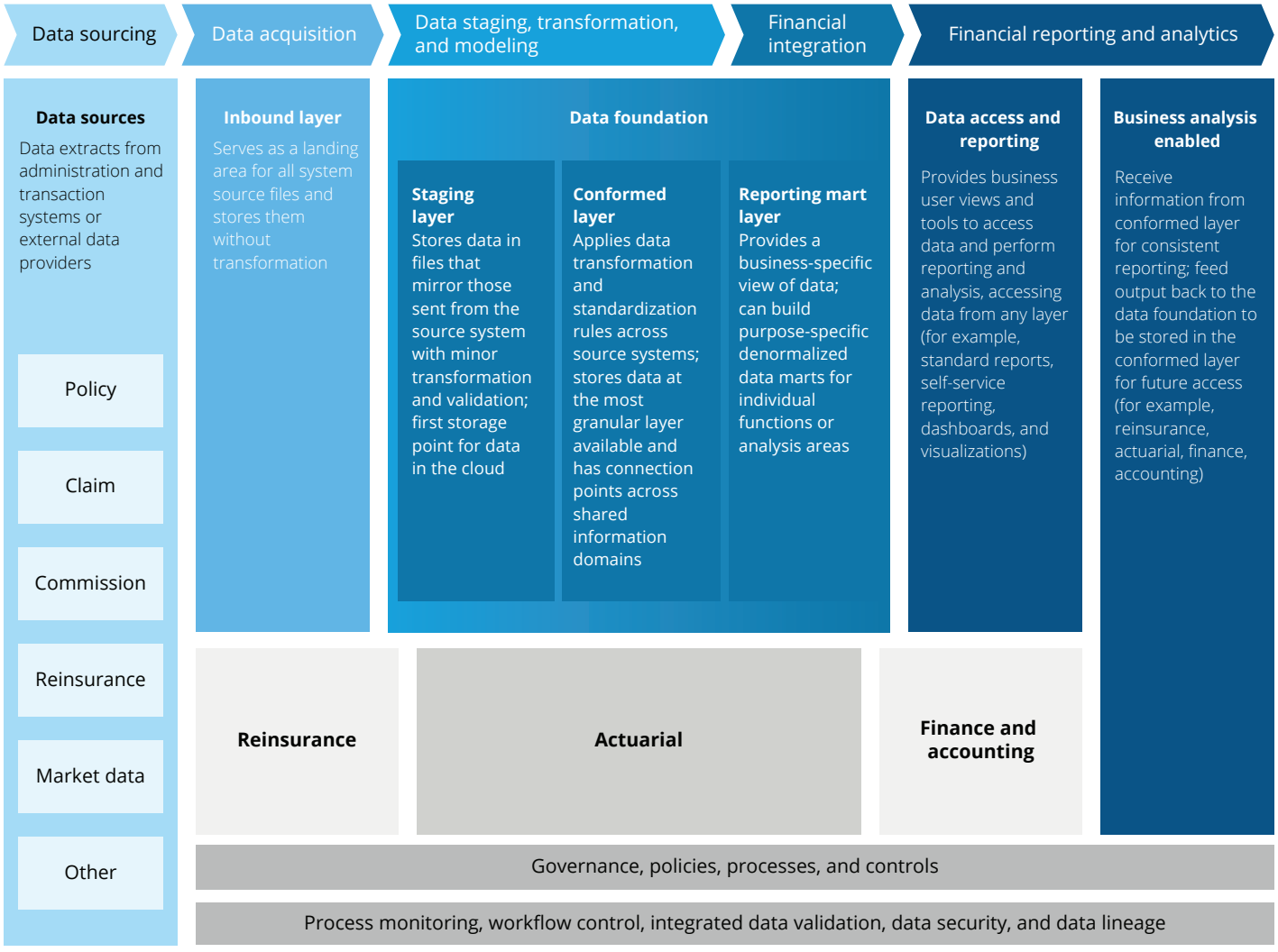
Chronic underinvestment has left many insurers without a competitive systems architecture and the tools to support today's business, let alone tomorrow's data needs. Current data is often aggregated or siloed by source system, limiting visibility into the entire business across a product. The underlying administration systems are built on outdated mainframe platforms that have limited processing capacity. This insurance data is often not available for automation and cognitive applications due to access, standardization, and consolidation difficulties. The data is typically fed to actuarial processes and the ledger through old data feeds with limited transparency, increasing the level of difficulty for use in financial analysis. The resulting complex web of data sources, systems, and interfaces continues to grow with each new data requirement over time (see figure 1).

Figure 1. Illustrative web of data



Over time, this approach has created complexity in insurers' ability to fully understand and leverage the data. Point fixes are expensive and generally do not enable the business to leverage data as an asset for the future. LDTI implementation presents an opportunity for L&A insurance companies to establish the necessary systems architecture to deliver on the most urgent LDTI business data requirements while also establishing a data foundation for the future. By developing a scalable, data-centric solution that provides a common platform to gather, enhance, integrate, and streamline data from existing sources (figure 2), organizations can meet near-term compliance requirements and enhance broader data capabilities.

Figure 2. Solution architecture components



Note: The architecture in figure 2 is a reference, and the specific layers in the architecture are typically adjusted based on individual clients' needs and existing landscape

Insights into profitability require access to standardized data across the entire product line, as well as access to historical data and a flexible architecture to enable data analysis across multiple source systems. This type of data foundation architecture solution can initially support critical new data feeds for LDTI and, over time, can be expanded to include additional data components which allow the business to address broader insurance data, analytics, and dashboard reporting priorities and solutions ranging across valuation to overall finance or even to underwriting and new business processing.

Use case: Developing interim and ideal-state data solutions

An L&A insurance company has multiple, point-to-point in-force extract (IFE) files from each administration system that are being sent to the valuation function and used for the reserving process. The IFEs go through several transformations and manipulations before the final output; however, the resulting data is neither well-defined nor understood. In addition, the existing IFEs do not have all of the data needed to comply with LDTI requirements. An additional data extract is required to source the current-period actual premiums and claims payments information.

Recognizing budget and time limitations, project leaders defined an interim solution that will provide immediate changes for LDTI compliance and an ideal-state solution that the valuation function and enterprise will be able to leverage for future benefit.

In the interim solution design, the IFE process remains unchanged, and desires for additional transparency into the in-force file creation process are deferred to a later date. Premium data from the administrative system transaction files and claims payment data from the claims systems are sourced to the data foundation, where it is cleansed and standardized across source systems. Leveraging this standardized data, new data extracts are then created for the actuarial models, for analysis, and for reconciliation against the ledger. This data is now available for LDTI valuation modeling, as well as for the creation of new user reports or dashboards.

This approach limits the number of new feeds required for LDTI and also allows the business to explain business results through analysis at both a policy or cohort, and a further aggregated level. Over time, the data sourced through the data foundation can be scaled based on business priorities. Post–LDTI implementation, the company can expand this approach to address the end-to-end IFE process or possibly prioritize sourcing commission data for much needed commissions analysis.

The holistic, ideal-state solution design sources data directly from all administrative systems, including information required by valuation and other functions. The data is defined and documented to ensure that it is readily understood and can be traced back to each system of record. The solution creates feeds to replace the legacy IFEs previously sent to the valuation data warehouse (which is incorporated into the new system) and requires all transformations to be fed directly to the actuarial modeling tool, eliminating the need for manual interventions.

Moving forward

As insurers plan their solution development approach to LDTI compliance, they should also evaluate steps to close gaps in their business, data, and technology capabilities. While doing so may require some additional up-front time and effort, it should have limited impact on LDTI solution implementation and may help reduce overall technical debt and cost to support longer-term business data needs. Among factors to consider:

- **Timeline to compliance –** How far away is your LDTI go-live date? How much work has already been completed? Most insurers today are close to finalizing requirements and a conceptual solution, but should have time to address longer-term scalability considerations.
- **Current business challenges –** Which typical business challenges are most applicable and critical to address? Insurers with a string data foundation may choose to quickly meet compliance needs. Others may decide to focus on eliminating data silos across business functions by integrating governed platforms for operational, in-force, actuarial, and finance data sets.
- **Current technology challenges –** What does the company's current technology landscape look like? How siloed are the data and architecture? Does a consolidated data lake exist that could be enhanced or expanded to meet LDTI requirements? Similar to other industries, insurance is moving toward cloud computing versus enhancing legacy on-premises solutions.
- **Budget –** What funding is available to enhance or replace the existing technology landscape? Multiple insurers have come up with innovative business cases and financial engineering solutions to fund long-term technology initiatives amid the constraints of today's unfavorable economic conditions.
- **Minimum compliance versus growth enablement –** Is the company's goal to meet minimum LDTI compliance requirements or to build an end-to-end solution that can be leveraged for broader reporting and analysis? Many insurers are going with a "smart compliance" approach so they can use this opportunity to support future growth.
- **Future vision for the solution –** How do business users across various functions access and leverage data today, and how might that differ in the future and influence how they interact with the solution? Most insurers are looking to reduce the cost, inefficiencies, and technical debt they have accumulated over the past few decades by making incremental or transformational steps toward a future data-centric solution.
- **Improved technology capabilities –** How can the solution help transition suboptimal legacy systems and technology capabilities to a more robust state? Cloud, artificial intelligence, and other digital technologies, combined with standardized data models and prebuilt integration accelerators, can significantly reduce the cost of unwinding legacy systems and improve time to market for new data solutions.

The effective date for LDTI compliance is quickly approaching. A "smart compliance" approach that builds on an insurance company's prior technology investments can help it meet immediate LDTI requirements and establish a scalable data platform that provides future business value.

Contacts

Corey Carriker
Managing Director
Deloitte Consulting LLP
ccarriker@deloitte.com
+1 612 397 4376

Raj Chhabra
Managing Director
Deloitte Consulting LLP
rchhabra@deloitte.com
+1 313 396 5919

Gaurav Vohra
Specialist Leader
Deloitte Consulting LLP
gvohra@deloitte.com
+1 973 602 5450

Endnote

1. Deloitte, "Leveraging LDTI regulatory intersections with IFRS 17, PBR, and CECL," 2019, https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fasb-leveraging-ldti-regulatory-intersections.pdf.

2. Deloitte, *Tackling the ASU 2018-12 long duration targeted improvements new disclosures requirements: Future policy benefits rollforward*, 2019, https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fs-asu-2018-12-long-duration-targeted-improvements-new-discolures-agreement.pdf.

Deloitte.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States, and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional adviser.

Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

Copyright © 2020 Deloitte Development LLC. All rights reserved.