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The Modernization Imperative

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Introduction

The insurance industry stands at a crossroads. Carriers recognize the urgent need to modernize legacy systems and business processes to meet rising customer expectations, capitalize on emerging technologies, accelerate speed to market, and remain competitive. Core modernization is the number one priority of IT organizations for large and midsize P/C insurers.[1] On the L/A/B side, core and digital modernization are the top two IT priorities for large and midsize carriers.[2]

There are internal and external pressures for insurers to modernize, but large-scale core system replacement initiatives are enormously complex, risky, and resource-intensive. As a result, many insurers find themselves constrained by legacy platforms that stifle their ability to be nimble and innovate. Carriers that are not in a position to embark on large-scale policy administration replacements still need strategic options for modernization to remain relevant and competitive. Fintech and insuretech providers are an option for carriers to consider helping them move forward in their modernization journeys.

This report, sponsored by FintechOS and prepared by Datos Insights, examines the key drivers reshaping the insurance industry, the challenges legacy systems impose, and looks at how a progressive modernization strategy focused on delivering business value throughout the transition can provide an option for value to some carriers.

Methodology

This report was created based on Datos Insights' industry knowledge, survey data from our Datos Insights Research Council, and conversations with solution providers and insurer CIOs.

[1] See Datos Insights' report Property/Casualty Insurer IT Budgets and Projects 2023, January 2023.

[2] See Datos Insights' report Life/Annuity/Benefits Insurer IT Budgets and Projects 2023, January 2023.

Drivers of Change

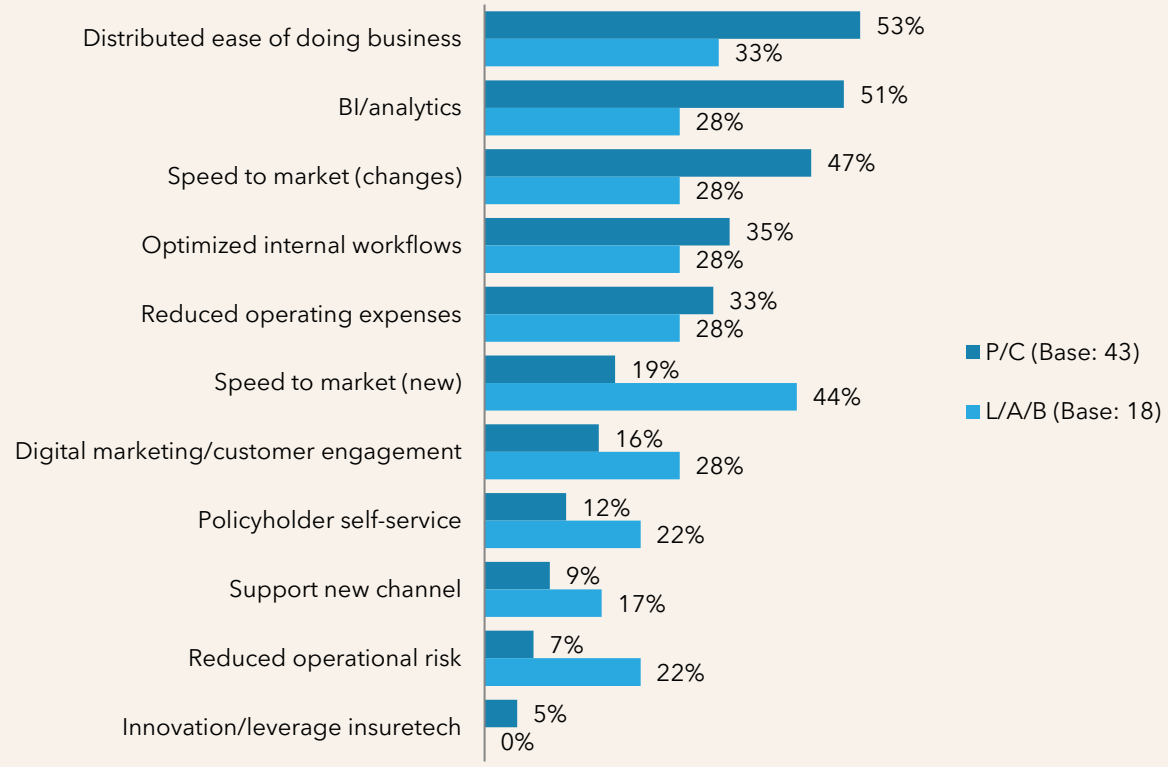
A variety of factors across the insurance industry are driving carriers to consider modernization projects for various aspects of their technology ecosystem. In surveying members of the Datos Insights Insurer CIO Council,[3] the most important technology areas to address for the business units can be grouped into the following three categories:

- **Rising customer and agent experience expectations:** Insurers need to engage customers and equip agents and internal employees with the right tools and experiences to meet expectations.
- **Market pressures driving speed to market:** Insurers need to be able to launch new products and adapt existing ones to changing customer needs and market conditions faster than competitors to stay competitive and profitable.
- **Emergence of new capabilities and ecosystem connectivity:** Insurers need to be able to integrate third-party systems and services with their core systems more easily to gain their benefits.

Figure 1 shows the top capabilities insurer business units want IT to deliver in 2023 and beyond. Modernization of the technology is critical to delivering all these capabilities.

[3] See Datos Insights' reports, Property/Casualty Insurer IT Budgets and Projects 2023 and Life/Annuity/Benefits Insurer IT Budgets and Projects 2023, January 2023.

Figure 1: Top Capabilities That Insurer Business Units Want IT to Deliver in 2023 and Beyond



Source: Datos Insights

Rising Customer and Agent Experience Expectations

Consumers today are more informed, demanding, and tech-savvy than ever before. They want personalized, convenient, and transparent insurance products and services that suit their needs and preferences. They also want their insurers to deliver outcomes that are quicker, more affordable, and higher quality. This demand from customers and agents to provide better digital experiences is requiring insurance carriers to take stock of the experiences they provide. Across the board, insurers are investing heavily in digital, data, and core capabilities to improve agent and user experience, which is key to customer acquisition and retention.[4,5] Self-service capabilities for agent new business transactions have become a requirement in many segments of the industry, and utilization has

[4] See Datos Insights' report Business and Technology Trends, 2023: Commercial Lines, August 2023.

[5] See Datos Insights' report Business and Technology Trends, 2023: Individual Life, March 2023.

expanded in personal lines, small commercial, and individual life compared to previous years.[6]

Carriers also need to equip their internal employees with the right tools and experiences to cope with the training challenges exacerbated by the loss of experienced workers due to retirement. More than 80% of insurers list talent among their top three challenges for 2023.[7] Improving the technology used and the intuitiveness of the platform can help to attract talent better and improve the training curve to become proficient. The insurance industry has historically been slow to adapt to these needs, but there is competitive pressure to accelerate digital capabilities and adopt more customer and agent-centric approaches.

Market Pressures Driving Speed to Market

The insurance industry is constantly evolving and facing new challenges and opportunities. Insurance carriers need to be able to launch new products and adapt existing ones to changing customer needs and market conditions to stay competitive and profitable. Doing so requires a high level of speed to market, which is the ability to deliver products and services faster than competitors.

Speed to market for product changes or new products is year-over-year one of the top three business unit priorities for L/A/B and P/C insurers. It is also one of the top challenges posed by legacy systems.[8]

Table A shows speed-to-market drivers for different lines of business.

Table A: Speed-to-Market Drivers in Insurance

Line of business	Speed-to-market driver
Personal auto	• Driver behavior • Inflation • Supply chain disruption

[6] See Datos Insights' report Self-Service and Digital Premium Payment Rates in Insurance, April 2023.

[7] See Datos Insights' reports Property/Casualty Insurer IT Budgets and Projects 2023 and Life/Annuity/Benefits Insurer IT Budgets and Projects 2023, January 2023.

[8] See Datos Insights' reports Property/Casualty Insurer IT Budgets and Projects 2023 and Life/Annuity/Benefits Insurer IT Budgets and Projects 2023, January 2023.

Line of business	Speed-to-market driver
Property	• Weather • Inflation • Litigation • Reinsurance
L/A/B	• Inflation/market conditions • Regulatory environment • Distribution requirements • Consumer needs

Source: Datos Insights

New Capabilities and Ecosystem Connectivity

The insurance ecosystem consists of insuretech partners, managing general agents, and third-party data services that offer valuable solutions and capabilities that can complement or supplement the carriers' offerings. Capabilities that add value include data, advanced analytics, and artificial intelligence solutions that can help carriers improve their products, services, and operations.

These solutions can provide carriers with insights and recommendations that can enhance their pricing, underwriting, claims, and customer service processes. For example, solution providers offer claims analytics that assess attributes at first notice of loss/first report of injury and throughout the claim life cycle to automate certain elements of the process. Data and analytics can also be used during the adjudication process to assist adjusters with evaluating damage, severity, and liability on a claim or to assess driver behavior. On top of improving the fundamentals of the insurance carrier, these partners can help them explore new opportunities to acquire new consumers and markets by providing access to new channels, segments, and regions. New capabilities and ecosystem connectivity are driving change in the insurance industry, particularly in the P/C market.

The challenge for insurers lies in effectively utilizing these ecosystems and features with their current technology. The ability to integrate with new solutions can be difficult and time-consuming with older, legacy systems that do not allow flexibility in their architecture through more modern APIs and services. A modernization effort that details a clear architectural vision can allow integration to new capabilities quickly and seamlessly, providing a competitive advantage for carriers who can test, learn, and pivot as needed.

Challenges for Carriers

Industry factors are driving carriers to update their technology, but insurers also face internal challenges that act as barriers to improving their competitiveness in the field. The most prominent challenges are legacy systems, the risk of a full replatform, resource constraints, the accelerating pace of innovation, and the need for new products.

Legacy Systems and Accumulated Technical Debt

Legacy systems and accumulated technical debt are major challenges for the insurance industry. Historically, legacy systems were reliable workhorses for business. However, they lack the modern architecture and configurability of insurers' future business needs, which in turn limits insurers' ability to offer innovative and flexible products that suit the needs and preferences of their customers. New core platforms and modern technology that can enhance existing platforms are the path to eliminating the key drivers of technical debt.

- **Inflexible architecture and hard-coded business rules:** Modern systems allow for flexibility through low-code or configuration, providing a faster and simpler approach to change and increasing speed to market.
- **Inability to provide real-time data or status updates:** New policy administration systems offer real-time processing and transparency into the status and events of the policy life cycle.
- **Difficult point solution integrations:** Modernization efforts include migrating to new systems that are architected using more robust capabilities and standards like APIs and granular services to provide ease of integrations and connectivity to the insurance ecosystem.
- **High ongoing maintenance costs and risks:** Modern policy administration systems offer the ability to reduce dependence on key personnel and institutional knowledge that is aging or retiring.

Even in the 2020s, many carriers still have legacy systems in place; this is particularly true of L/A/B insurers, many of whom have large books of active contracts in force on legacy hardware. Many of these same carriers grew by acquiring other companies, each of which typically came with their own contracts and legacy technology environments. A single insurer may have dozens of legacy core policy systems, each supporting a specific product or market.

Replatforming Risk

A complete core system replacement has traditionally been viewed as the premier modernization event within insurance IT departments. But these multiyear, massively complex initiatives entail tremendous risk. Carriers generally have a mix of products on their platforms, including closed blocks and highly customized outdated products.

- **Full product migration is costly.** The process of moving all products, particularly legacy life and annuity products, is usually more difficult than initially thought. Costs escalate quickly as the projects become more complex and delve into legacy business rules.
- **Resource diversion can delay other strategic initiatives.** Diverting deep technical and business resources can hamper the ability to pursue other key initiatives concurrently. Large, committed teams are required to tackle a full replatform, which creates scarcer resources for other activities such as product refreshes and rate updates.
- **Legacy processes often move to the new solution.** Clear and planful choices on what to leave behind in the legacy and what to include in the future platform are not always made, creating complexity in the new systems and delays in progress.
- **A modernization mindset is needed to move forward unencumbered by the past.** Strong leadership is needed to inspire organizations to focus on the future, stay the course, and embrace new ways of doing business to gain the most from the technology available.

Resource Constraints

Legacy platforms necessitate retaining specialized technical skills to maintain and operate aging technologies. These resources are costly and scarce in today's market. Older systems have complex interdependencies and embedded business logic that can make them difficult to understand and change. The following are the most impactful challenges:

- **Institutional knowledge:** Knowledge of legacy systems is isolated to a small group or a single employee within the technology and business areas.
- **Long training cycles:** Legacy systems take much longer to learn than modern systems, and digital natives have little patience for antiquated user interfaces.
- **Limited capacity for modifications:** Resource constraints limit the amount of change carriers can introduce to address regulatory, product, or customer experience needs

due to the extensive coding and testing that is required from limited knowledgeable resources.

Relentless Pace of Innovation

Innovation in products, services, and markets enabled by technology is a key strategy for many insurers. Carriers with inert legacy IT struggle to harness innovations before the next wave emerges. Insurers can easily find themselves way behind the curve as legacy technology impedes time-to-value. As the rate of technological change continues to accelerate, investments may have a shorter life span. As a result, the innovation adoption cycle spins too slowly compared to the pace of change.

Carriers that implement test-and-learn strategies have an advantage in the speed at which they take advantage of new technologies to gain market advantage. Carriers with long development cycles to implement risk becoming market laggards. Agile architectures and processes enable carriers to quickly modify their offerings for their customers' benefit or for their own efficiency. Emerging technologies like artificial intelligence, analytics, third-party data, and Software-as-a-Service thrive in a test-and-learn environment and are changing at an accelerating rate.

Challenges Diversifying Into New Lines of Business

Launching new products or entirely new lines of business on legacy systems is often cost-prohibitive. The required integrations, coding, and data services make it highly complex and time-consuming and require knowledgeable resources. Much like trying to adapt to innovations, the cycle to implement new products is long.

A great deal of time and effort must be paid to complete the development and deployment of a new offering, delaying its introduction to the market. Once that effort has been completed, the process to assess the efficacy of the product in the market begins. Any changes needed to improve the product for pricing, risk assessment, or customer satisfaction must go through another long development cycle time. Carriers may be forced to acquire books of business in new segments rather than building organically because legacy IT constraints raise costs dramatically. This adds to the systems in the environment and increases and perpetuates the level of complexity.

Strategic Approach to Long-Term Competitive Advantage

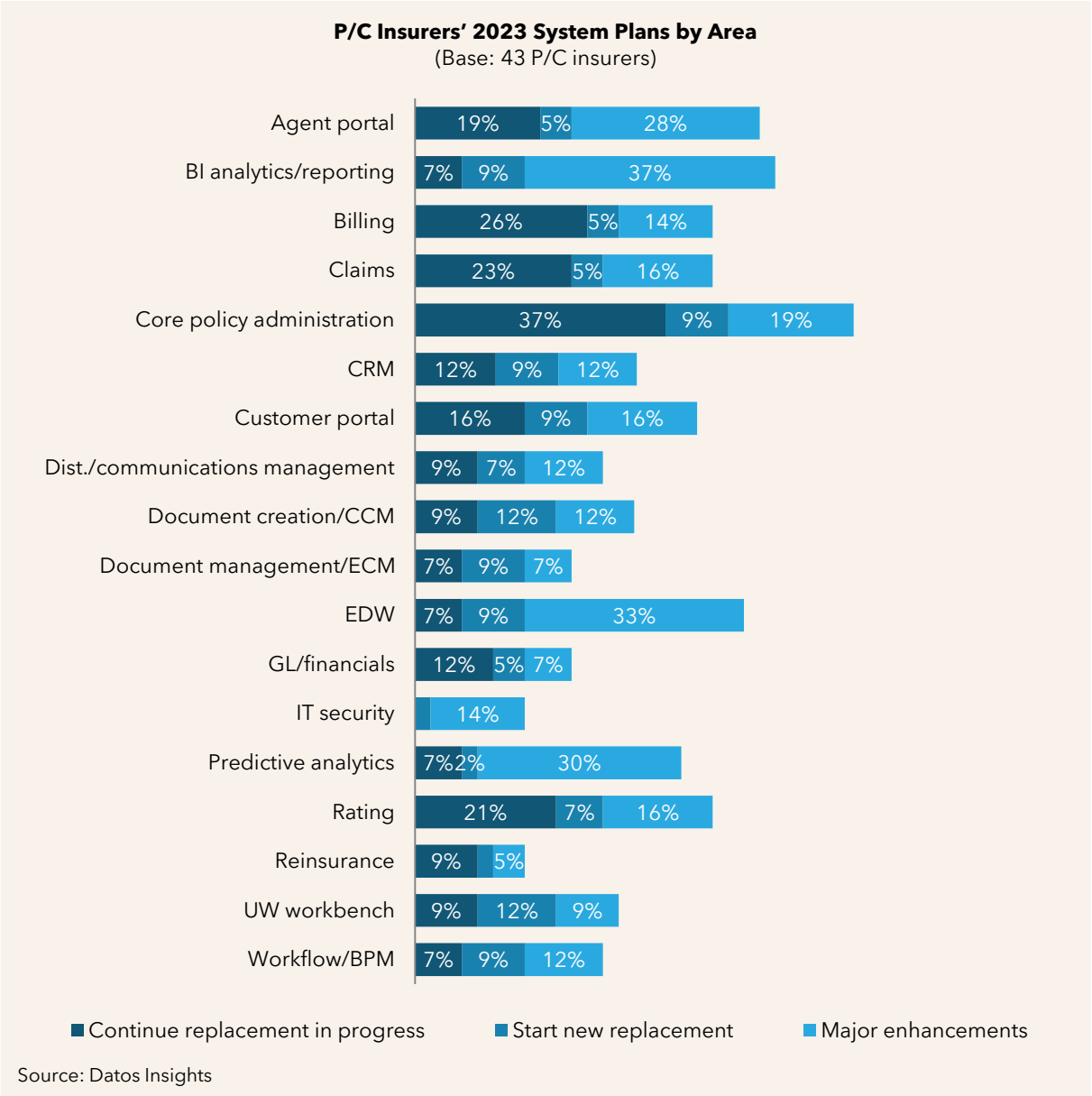
Insurance carriers need to assess the business needs driving their modernization efforts to determine the best approach for short- and long-term impact and modernize their systems aligning to a well-designed architecture. Avoiding band-aid solutions that increase rather than reduce technical debt is critical. All modernization efforts should intentionally align to a sustainable target state architecture. Key elements of a sustainable architecture are outlined below:

- **Well-designed integration layers, APIs, and cloud deployment:** These are crucial for modern, sustainable systems. Integration capabilities will enable carriers to enable their systems more quickly with ecosystem capabilities.
- **Low-code tools:** These help carriers adapt more quickly by enabling business user configuration that reduces dependency on developer resources. Low-code can alleviate certain capability and integration gaps without requiring comprehensive modernization.
- **Fintech or insuretech enablement:** This enhances core capabilities, allows for speed-to-value, and aids in implementing a well-planned incremental modernization effort.

In assessing the drivers of change and resulting business demands, carriers determine the priority of the various system projects they can fund. It is no surprise that in the survey data from our Datos Insights Research Council, carriers funded core policy administration projects, business intelligence and analytics, and portal capabilities in 2023 for P/C (Figure 2).[9]

[9] See Datos Insights report Property/Casualty Insurer IT Budgets and Projects 2023, January 2023.

Figure 2: P/C Insurers' 2023 System Plans by Area



Source: Datos Insights

For L/A/B carriers, the survey indicated that portal capabilities, core policy administration, and improved workflow were the top functional areas to address in their journey to modernize technology (Figure 3)[10].

[10] See Datos Insights report, Life/Annuity/Benefits Insurer IT Budgets and Projects 2023, February 2023.

Figure 3: L/A/B Insurers' 2023 System Plans by Area

Source: Datos Insights

Modernization Strategies

Many carriers replace their core systems as their key modernization strategy, but others may not have the internal capabilities or the need to replace legacy systems fully. Each insurer's journey will be idiosyncratic. However, a common approach, as reflected in insurer technology investments surveyed in Datos Insights' Insurer IT Budgets and Projects reports[11], might be a hybrid approach of replacement and progressive modernization.

[11] See Datos Insights report Property/Casualty Insurer IT Budgets and Projects, January 2023.

Depending on the carrier product portfolio and legacy system complexity, more than one strategy can be implemented.

- **Greenfield implementation:** For carriers with a business need to drive innovation across products, channels, and experiences, quickly testing and launching new offerings is imperative. New policy administration systems and next-generation insurance platforms are more equipped to support new product offerings from launch to refinement and maintenance. Carriers can choose to introduce their new product or offerings to new markets on these kinds of systems as they are typically more agile and can act as a step in their modernization journey.
- **Digital experience focus:** For carriers who see business benefits in better serving their customers and agents through better experience, approaching modernization through a new digital experience platform can prove beneficial. Leveraging front-end digital platforms to wrap their existing systems is a step toward their desired end state that provides more immediate benefits to their stakeholders as they continue their strategic modernization. They can provide APIs for integration to ecosystem partners that carriers can leverage in their process.
- **Progressive modernization:** For carriers that cannot afford the investment to totally replace their administration systems in one large effort, a planful and architecturally appropriate incremental approach can help move carriers toward their desired end state.

Table B describes the advantages, risks, and value of these modernization strategies.

Table B: Strategy Characteristics

Strategy	Advantages	Risks	Value
Greenfield implementation	• Quickly onboard new products • Implement modern processes • Leave legacy baggage behind	• May increase technology complexity • Business processes can be clunky between multiple systems • Separates new and existing books of business • Can double costs due to running parallel operations	• New product revenue generation • Quick time to market
Digital experience focus	• Quickly improve customer and agent experience • Achieves operational efficiency	• Doesn't address core product challenges • May create siloed handoffs • Can increase technical debt	• Customer and agent engagement is improved • Revenue and expense savings can be generated • Quick time to market
Progressive modernization	• Eliminates technical debt • Prioritization is based on business need • Enables new product capability	• Duration could be very long • Funding may be redirected	• Elimination of technical debt • Value realized over time

Source: Datos Insights

Each carrier's particular needs will drive its approach to technology transformation. For example, an insurer that sells through independent agents may elect to target systems of engagement first, bridging the portal to the core system via robotic process automation or a temporary integration layer. Prioritizing investments based on pain points and business value delivery will pave the path to the future vision.

Carriers can prioritize capabilities to modernize by incrementally improving their current legacy systems. Similar to addressing the front-end experience, carriers can isolate a function or process like underwriting, claims, or agent onboarding and replace the current

process with a more modern and sophisticated solution that can improve results while following a well-articulated path toward the end-state modern architecture.

A new strategy for scalable innovation is by leveraging a fintech/insuretech enablement platform, a "technology infrastructure that acts as an operating system to enable rapid and efficient innovation of digital products and services."[12] These platforms integrate with legacy and ecosystem technologies and "include prebuilt and modifiable components that can be quickly deployed in a more agile and responsive method than most traditional development cycles."[12] Using fintech/insuretech enablement platforms, insurers can take any of the modernization approaches discussed in this report to enhance their modernization journey.

[12] See Datos Insights report, The Benefits of Fintech Enablement: New Approaches to Ongoing Innovation, February 2023.

Conclusion

Insurers recognize the urgent need to modernize systems and business processes to meet rising customer expectations, capitalize on emerging technologies, accelerate speed to market, and remain competitive. However, large-scale core system replacement may be unfeasible for some carriers due to resource constraints, complexity, and risk. Strategies to employ an incremental approach focused on enhancing the customer experience, enabling speed and agility, and pursuing incremental enhancements can help address immediate challenges while working toward the long-term modernization vision. Carriers should consider the following when planning a modernization effort:

- **A hybrid approach**, one that balances incremental and greenfield technology, is needed to enable innovation and risk management during modernization.
- **Clear blueprints and roadmaps** are required to maintain focus on the planned end goals amidst years of complex execution. Careful selection of software and service providers that will provide ease of implementation and speed-to-value are key.
- **Modernized mindsets**, leadership perspectives, and organizational culture are needed to be in tandem with upgrading technology.
- **Patience and commitment** to stay the course are required, but the journey leads to strategic agility unencumbered by the past.

Carriers that can operate with simplicity, flexibility, and efficiency will gain the advantage. Modern insurance software solutions can provide the capabilities necessary to pave the path forward. Strategies to best utilize technology that enables modern product management can mean the difference between competing effectively in the industry or being lost in an antiquated and uncompetitive model.

About Datos Insights

Datos Insights is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

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