WHITE PAPER

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INSURANCE CXO GUIDE

# Revolutionizing Insurance: A Comprehensive Guide to Digital Integration

## Overview

The rapid evolution of hyper-automation, AI engineering, RPA, distributed cloud, and low-code/no-code technology have led to exponential digital innovation. These advancements have not only been successfully implemented but have also resulted in a new era of markets, services, and industries, profoundly reshaping consumer expectations. As the global digital ecosystem continues to expand, insurance organizations are embracing multi-stack innovation that combines and complements different digital technologies. Organizational plasticity has allowed technology-enabled insurers to cater to policyholder expectations regarding resilient delivery, location independence, and customer-centricity. Let us look at five key technologies that are transforming the insurance industry:

### Artificial Intelligence (AI)

AI has proven instrumental in enabling insurance carriers to optimize core processes, increasing productivity and service quality across various customer touchpoints. The integration of IoT (internet of things) and AI across devices is providing access to vast amounts of new data. This data allows insurance carriers to understand clients more deeply, paving the way for personalized product offerings, pricing, and streamlined service delivery. Also, with the arrival of Generative AI, the insurance industry can address challenges around data-driven decision-making, customer engagement, and operational optimization. It can significantly enhance the operational efficiencies for the most crucial processes such as underwriting and claims.

### Data Extraction

The global insurance ecosystem is an intricately interconnected and competitive space. Industry incumbents face unprecedented demands in terms of precision, timelines, and predictive foresight, which can be addressed only by data-driven decision-making. Access to better data improves risk selection, policy administration, underwriting processes, claims, loss modeling analytics, appraisal of insured assets, and regulatory reporting. IPA (Intelligent Process Automation), NLP (Natural Language Processing), and ITI (Intelligent Text Ingestion) are technologies capable of creating robust data extraction models.

### Robotic Process Automation (RPA)

RPA enables automation of mundane yet complex processes and tasks, freeing up resources for other strategically critical tasks, increasing throughput, reducing turnaround time, and improving the overall efficiency of insurance operations. It facilitates automation of document processing and claims workflow, enhancing timelines, efficiency, determination of retention risk, and real-time access to customer data.

### Analytics/ Big Data

Securing both unstructured and structured data for analysis can help insurers foster meaningful customer interactions in distribution, claims processing, and customer services. The application of advanced analytics in actuarial practice can help establish premiums, manage portfolios (including loss prevention and propensity analysis), and review and estimate unpaid claims. Pricing and growth analytics solutions can address challenges related to business planning, product launches, product maintenance, price monitoring, profitability, and determining rate adequacy.

### Low-Code/ No-Code Technology

Low-code/no-code technology has empowered non-programmers to create applications faster than the traditional approach. Low-code/no-code platforms offer businesses endless possibilities in maintaining and developing applications and insurance products, including coverage, rating algorithms, forms, application programming interfaces, and connectivity. They help businesses achieve operational excellence, accelerate returns from new products and services, automate manual processes, and streamline workflows, reducing the gap between envisioned performance targets and actual performance. Once developed, business can manage these solutions, implemented and verified by IT, and drive desired operational, regulatory, and other outcomes.

## Challenges Facing the Insurance Industry

"Many re/insurers lack end-to-end process maps, so it can be difficult to visualize fully digitized workflows or the impact of current legacy systems," noted Monalisa Samal, senior vice president of risk management and innovation at Xceedance. "Moreover, some organizations must readily embrace a culture of positive change for its vast benefits, and any large scale digital initiative represents a significant change," she added.

In the face of these changes, most re/insurers are confined to legacy environments that affect efficiency and increase costs. The following sections explore some of those challenges.

## Industry Challenges

### Major Shifts in Traditional Operating Models

Launching a new suite of products within the insurance industry can take months. Meanwhile, the customer waits for their needs to be met. Traditional, functional, and hierarchical operating models within the insurance industry are designed to succeed in relatively stable environments and quickly become outdated given the increased pace of change of the current era.

### Changes in Customer Demands

Customers engage with insurers at multiple access points across different channels before, during, and after purchasing a product. According to McKinsey, by 2024, only two out of ten customers will connect with companies solely offline. Digitization of existing agent channels is key to addressing the multi-access needs of customers. "In this hyper-competitive industry, insurers must be sensitive to buying behaviors across the lifetime of technology implementations. Inflexible and highly coupled system architectures are an enormous risk," noted Michael Parcelli, senior vice president at Xceedance.

### The Need for Seamless Underwriting, Pricing, and Claims Processing

Digital quoting and pricing capabilities are indispensable for all insurers. Many insurers struggle to digitize their onboarding experiences in core functional areas such as document verification, payments, and digital signatures.

### Rise of Insurtechs

Insurtech companies are bringing innovation to traditional product offerings and driving customer engagement and retention through IoT and telematics. Agile operating models and digital innovations enable insurtechs to unlock value from attractive profit pools. Incumbents must adapt or lose market share to these new entrants. They should analyze the innovation landscape, compare in-house technological capabilities with insurtech offerings and consider several options, including digitizing operations or possibly developing partnerships.

## Business challenges

### Technology Implementation

Below are several key areas where strategic investments can drive significant positive business outcomes.

### Connecting People, Processes, and Technology

This critical yet often overlooked step requires creating a single point of truth and enabling data sharing across the enterprise. If core systems struggle to deliver information across processes to multiple endpoints in real-time, an organization cannot achieve the desired efficiencies from digitization.

### Harnessing Automation

Legacy IT infrastructure is one of the biggest obstacles to innovation; outdated paper-based processes create time lags and process delays. RPA and digital FNOL (first notice of loss) solutions can help overcome these obstacles. "An RPA solution yields the greatest, immediate ROI, mitigating 'touch time' for human resources that should be allocated to more complex decision activities," added Parcelli.

### Delivering Superior Customer Outcomes

Achieving effective omnichannel engagement and personalizing the customer journey across multiple touchpoints are integral to creating a seamless customer experience. AI-powered chatbots, cloud telephony, app based engagement, machine learning, and data analytics can help organizations optimize customer engagement.

### Ethical Implications

Businesses deal with vast amounts of structured and unstructured data. AI can help analyze that data to derive actionable insights. However, its implementation requires organizations to consider specific ethical implications. AI products should be designed to adhere to environmental, social, and governance best practices. Further, they must acknowledge data security and privacy concerns to maintain the trust of consumers, investors, and employees. Clearly articulated declarations on data collection and use can address these issues effectively.

### Execution of a Comprehensive Data Strategy

Most organizations lack a single coherent path for data transfer and need to have data ingestion and extraction processes in place. "One of the key areas where I see technology having an impact is with data ingestion and data extraction," stated Jainendra Kumar, vice president, digital transformation at Xceedance. "By utilizing AI, many of the manual elements of review and extraction can be automated, saving time and improving operational efficiency." Most organizations lack a single coherent path for data transfer and need to have data ingestion and extraction processes in place.

### Outdated Technology Infrastructure

Maintaining legacy IT infrastructure and end-of-life applications pose severe risks and costs. The resources spent on maintaining obsolete technology increase every year. Additionally, older systems are highly susceptible to varied cyber threats. Outdated software architecture and siloed data systems reduce reliability and agility, creating governance and accessibility challenges.

## The Solution

By partnering with a proven strategic operations support and technology partner, insurance organizations can leverage the "DATA" model (Differentiation, Agility, Transformation, and Automation), helping them succeed in a dynamic and evolving technological ecosystem. With proven experience in implementing emerging technologies, building a culture of innovation, improving workflows, processes, and results, such partners help insurers develop and maintain a competitive edge by providing multiple critical services, including:

### Automation Services

Deliver a robust and scalable automation system aligned with client processes to help them gain a competitive advantage by increasing operational efficiency, accuracy, enhancing overall customer experience, and reducing costs. Applying RPA, including Generative AI, and ML technologies facilitates automation of rules-based tasks, increasing throughput and reducing turnaround times across the value chain. Underwriters and actuaries can expect accurate output for premium coding, pricing, and financial analysis, enabling them to write faster, with greater visibility of risk parameters.

### Data Management Insights

Harness a talent pool of industry-savvy data scientists and insurance experts capable of mining insurance data and applying AI tools for decision analytics. Strategic partners help re/insurers, agents, and brokers accelerate their data-to-insights lifecycle, using robust proprietary data warehousing frameworks and leading edge data enrichment and ingestion systems.

### System Integration

Provide a single, unified solution for integrating technology products across the insurance value chain, giving clients access to turnkey solutions that ease integration of commercial off-the-shelf products such as those provided by BriteCore, Duck Creek Technologies, and Novidea. A proven technology partner with extensive experience across global re/insurance markets and a highly experienced team of system integration experts, including insurance consultants, solutions architects, and implementation specialists, can deliver maximum ROI.

### Infrastructure Services

IT services partners help re/insurers, agents, and brokers modernize their IT infrastructure, adopt a cloud-first approach, and optimize workload placement while balancing the IT budget. Additionally, IT support services enable a seamless experience for policyholders by minimizing downtime and mean time to recovery. Together with partner cloud providers and dedicated teams of certified ITIL/ITSM, Microsoft 365, AWS, and Azure professionals, IT partners help insurance organizations boost business agility, strengthen security, and facilitate a consistent user experience across varied touchpoints.

# Use Cases

Xceedance partners with leading global insurance organizations to deliver significant business outcomes. Here are select success stories that emphasize the need for building strategic partnerships with digital-first operations and technology providers:

## Data Migration Testing

The client, a global commercial-lines insurer, wanted to replace its legacy commercial off-the-shelf solution for underwriters with a configurable, flexible, and cost effective platform. The existing software managed business-critical data on a two-tier client-server application. The scope of the migration included more than 3.6 million records.

Xceedance built an in-house Testing Center-of-Excellence to deliver 100 percent test coverage during data migration through a team of nine data quality assurance professionals with proven experience in managing large-scale data migration for insurance organizations. A water-tight quality assurance approach ensured all data in the legacy application was migrated to the new platform accurately. Xceedance optimized functional testing activities to ensure robust application workflows.

In-depth integration testing monitored and validated extract, transform and load (ETL) jobs for the existing and new platforms. Lastly, regression testing ensured no impact on platform functionality during new code releases.

## Automated Accounting

An insurer wanted an application that would allow their accounting department to automatically generate invoices from policy information, perform cash applications for premium payments received, initiate collection processes when needed, and update appropriate bank information.

Xceedance assembled a team that included members of the insurer's staff and Xceedance experts from their in-house technology, development, and QA teams. A four-month timeline was outlined for project completion using the Agile methodology. The team developed the required application on the Microsoft .NET platform, using ASP.NET, C#, MVC with AngularLS, and SQL Server 2012 as databases.

The application supported the client's functional business needs and resulted in:

**REDUCTION**
in manual effort

**CENTRALIZED**
access to information

**FLEXIBLE**
configuration and limitless scalability

**BROADER**
accessibility through a web-based application

**REDUCED**
human or processing errors

## Rating and Pricing Engine

An insurer partnered with Xceedance to develop a rating and pricing engine with real-time quoting, supplemented by rating algorithms for home, landlord, and motor coverages. The engine was required to integrate with third-party applications for quote generation and have the capacity to accommodate referrals, bind policies, process cancellation requests, and manage annual, installment, and renewal policies.

A referral management application (RMA) was required to include referral requests from the engine and a dashboard for annual, installment, and renewal policies, broker management, quote/policy comparisons, documents, user management, and embargo postcodes. It also required blocking and accessing the payment portal, viewing installment details, payment status, and sending email alerts.

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The application supported the client's functional business needs and resulted in:

**SCALABILITY**

to other personal lines of products with minimal effort and configuration

**DIRECT**

payment processing and reconciliation to the insurer's account

**MANAGEMENT**

of change requests for workflows, business rules, RMA, and the installment payment webpage

**PARALLEL**

development of installment-billing and renewal modules

**ENABLING**

changes to the broker portal without interrupting business

**MERGING**

of code and conduct-related regression testing for installment and renewal streams

## Conclusion

Technological innovation and the need for remote operations have made digital transformation initiatives indispensable to long term success.

To ensure more resilient operations, build or sustain digital momentum and deliver superior customer experiences, insurers need to make strategic investments in:

- Harnessing automation
- Connecting people, processes, and technology
- Instituting robust measures for data privacy and cyber security

Leveraging the capabilities of AI including Generative AI, analytics and big data, RPA, and low-code/no-code technologies will help prevent data and process silos, streamline processes, deliver exceptional customer experiences, and improve data security. A fast-moving data and technology environment means insurers must implement emerging technologies and build a culture of innovation, improving processes, workflows, and results. That calls for a much more proactive approach than applying patches to legacy systems and tending to technology modernization as an ad hoc measure. Incumbents within the insurance industry must formulate and implement a robust digital strategy that will streamline workflows, increase efficiency, and enhance long-term profitability.

"Given the race for enabling next generation technologies, insurance organizations must prioritize digital interventions that provide flexible options for reconfiguration as consumer expectations evolve rapidly over the lifetime of those implementations. They should also focus on use cases beyond those providing immediate relief for highly inefficient activities."

**-Michael Parcelli**

Senior Vice President, Xceedance