



WHAT LIES BEYOND DIGITAL FOR INSURANCE OPERATIONS?

By Erwin Dirnberger, Christopher Freese, Michelle Hu, and Michael Urban

THE RAPID MATURATION OF AI-driven digital technologies is reshaping the insurance industry. Insurtechs and digital insurance champions have flooded the market with personalized and proactive services, simpler claims processes, and seamless digital experiences—and their net promoter scores are sky high. The pressure is on for traditional insurance companies to keep up. To outperform their digital attackers, these companies need to reach the next level of insurance operations—or what we call bionic operations.

With bionic operations, companies can combine the best of two worlds by seamlessly bringing together humans and machines. Artificial intelligence delivers a step change in productivity by automating services, while human intelligence provides an edge in more complex, emotional cases.

This new model requires a transition from a digital mindset to a bionic mindset. Instead of automating simple, high-volume tasks and leveraging digital channels to

streamline interactions, the bionic insurer leverages AI to deploy automation at scale, uses machine-to-machine capabilities to deliver a step change in operational efficiency, and supports agents dynamically in real time. (See “The Impact of Bionic Operations.”)

The bionic operations framework has three components: a radically improved customer experience; a new approach to customer interactions that relies on machine-to-machine communication as the preferred channel; and AI-driven service delivery.

A Radically Improved Customer Experience

Most traditional insurance firms are significantly behind when it comes to customer satisfaction. Among these companies, the average net promoter score (NPS) ranges from 0 to 20, while insurtechs and digital leaders typically boast NPS scores between 30 and 50. When done right, bionic operations can help insurers reach a net promoter score of above 50.

THE IMPACT OF BIONIC OPERATIONS

This new model has the potential to deliver transformative impact.

- The new operating model omits low-value interactions and enables proactive interactions, personalized services, and live tracking to generate an average net promoter score (NPS) above 50.
- A better digital customer experience enhances next-generation cross-selling, upselling, and attracts new customers, enabling a general 10% increase in gross written premium.
- AI-driven automation can reduce the cost of service per customer by 30% to 50%.
- AI-driven operations will continuously advance new services and reduce time to market by 80%.
- Proactive and preemptive services will improve the company's loss ratio by 5 percentage points.

Bionic operations will improve the customer experience in two ways: by eliminating unnecessary, burdensome steps along the customer journey; and by delivering innovative, high-value services that benefit the customer. (See Exhibit 1.)

ELIMINATING UNNECESSARY AND BURDENSOME CUSTOMER EXPERIENCES

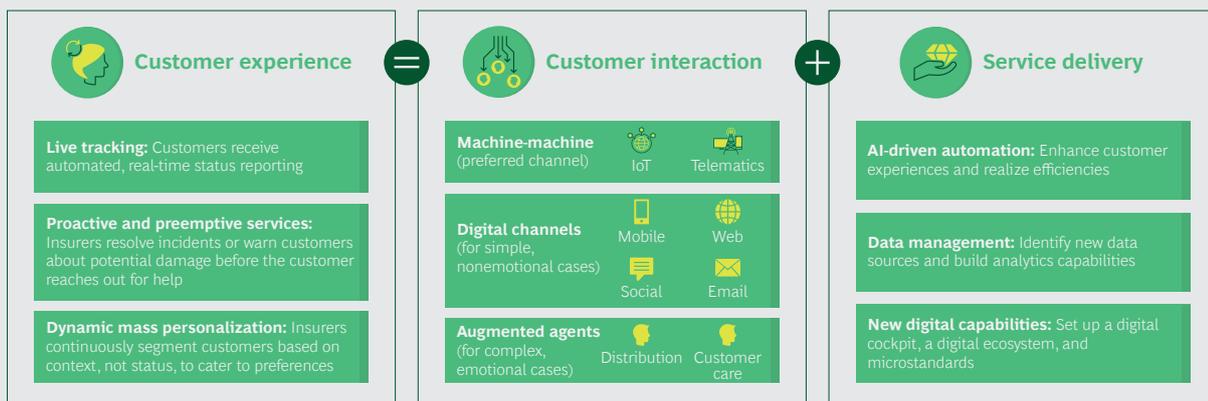
Insurers must eliminate processes that cause frustration, such as asking the customer to submit data or documents that could be gathered automatically. They must instead deliver hassle-free services, and the internal digital magic that eases or enhances the customer journey should be invisible.

For example, a US-based insurance provider offers a hurricane protection policy that delivers cash to policyholders within 72 hours when the conditions of hurricane strength and proximity are met. By eliminating the claims adjuster and automating the claims payment, the company minimizes unnecessary interactions and creates an effortless customer experience.

DELIVERING INNOVATIVE, HIGH-VALUE SERVICES

To build bionic operations, insurers must also deliver innovation and value through live tracking, proactive and preemptive services, and dynamic mass personalization.

EXHIBIT 1 | A Bionic Operating Model for Insurers



Source: BCG analysis.

- **Live Tracking.** Bionic insurers deliver customized, real-time notifications, allowing customers to track where their case stands, what to expect going forward, and when they will hear from the company next. When a new case is initiated, customers expect visibility into the process and want regular status updates through completion. Some insurers have already made significant progress with live tracking, and customers are coming to expect this level of service.
- **Proactive and Preemptive Services.** Insurers can proactively trigger an action to resolve incidents or avoid potential damage from incidents, such as a water leak or an impending storm. A US-based homeowners insurance company leverages AI and advanced analytics to provide early warnings of dangerous events, including wildfires, storms, and evacuation orders. By proactively monitoring situations as they unfold and preemptively filing claims on behalf of the policyholder, the company was able to achieve a net promoter score of 76 (three times the market average).
- **Dynamic Mass Personalization.** Insurers typically segment policyholders by status, designating customers as bronze, silver, gold, or VIP, the latter of whom receive the highest level of service regardless of the specific circumstances. With dynamic mass personalization, service is tailored to the situational context in real time, so customers receive the right level of support—at the right moment—delivered via the right channel. So, if a customer loses her luggage on a flight, she would receive an online notification, live tracking updates, and an alert when the issue is resolved. Even though she may qualify as a VIP based on her income and product portfolio, she wouldn't receive a call from the agent in this situation because digital texts, tracking, and alerts are more convenient and precisely needed. On the other hand, if she falls ill on a business

trip overseas, an agent would contact her via phone and orchestrate personalized services, such as a trip to the hospital or transport home. With dynamic mass personalization, the same person receives differing levels of service depending on unique circumstances, not status.

Rethinking Customer Interactions

To create a superior customer experience, insurers must shift toward a new model of customer interactions. Bionic insurers can expect a significant shift in channel distribution, with approximately one-third of client exchanges headed toward machine-to-machine interactions, one-half toward digital interactions, and the remainder toward “augmented agents.”

Machine-to-Machine Communication.

Insurers gain two benefits from implementing machine-to-machine interactions. First, they eliminate the rote interactions that burden customers and add no value. Simple, nonemotional transactions—such as customer onboarding, digital sales, or initiating claims—are managed by machine-to-machine contact so that the customer is involved minimally, if at all. Second, this form of communication allows insurers to offer the kinds of proactive and preemptive services that benefit customers and build loyalty.

An automobile insurer in Asia is currently working toward this model to ultimately deliver proactive and preemptive services for customers involved in car accidents. After a collision, the insurer's AI system will automatically scan photos of the accident, identify liability, and assess loss. Within minutes, the customer receives a text message with the damage assessment, settlement, notification of payment, and a list of car mechanics. Throughout the process, the customer experiences a truly effortless claim journey.

Digital Channels. When machine-to-machine interaction is either undesirable or infeasible, digital channels—such as mobile,

social, web, and email—offer the second-best option for simple, nonemotional requests. With digital interactions, customers can resolve issues without the involvement of an agent to save time and hassle.

Augmented Agents. When a personal touchpoint is needed, AI-driven digital tools can support human agents every step of the way. In bionic operations, all communications between customers and agents are digitized, including call center conversations, virtual interactions, and in-person exchanges, so they can be analyzed and fed into algorithms. Armed with a 360-degree view of the client, these AI-supported “augmented agents” can automatically generate dynamic, real-time support for the customer (rather than relying on static digital-support tools for guidance on the next-best offer).

A Fortune 500 life insurer implemented natural language processing to digitize its call center interactions. When a call comes in, it is automatically transcribed, analyzed, and interpreted to identify the customer issue and support the agent’s response. Agents are instantly provided with essential information about the client and given recommendations for next steps and solutions. Since deploying this innovation, the company has reduced the average length of calls and significantly improved customer satisfaction.

Stepping Up Service Delivery

This new approach to customer interactions requires a digital setup that can support more-advanced operations. Digital tools and organizational changes must be in place to make it real.

AI-Driven Automation. First, companies must invest in AI to optimize decision making. Insurers must deploy a wide range of integrated digital tools—including a digital interface with virtual assistance, AI for data extraction and image recognition, and robotic process automation—for simple tasks and data transfers. When these automation tools are integrated along the customer journey, they enhance one

another, enable automation rates of 70% to 95% (depending on the line of business), and support AI-driven decision making.

With AI-driven automation, the end-to-end customer journey can look very different than it does today. Consider a customer who uses a digital app to notify her insurance company about a water leak and to file a claim. The customer is automatically given instructions to avoid further damage, asked to submit a video showing the existing damage, and offered hotel options. The system sends referrals for repair shops and delivers real-time updates on the claims process until the case is resolved. The agent is only involved at one point in the process, to analyze the video. Otherwise, the entire claims journey is managed by machines with minimal hassle for the customer.

Data Management. At the core, bionic operations depend on excellent data management. Insurers must learn to identify the most relevant internal and external data sources, including video and voice interactions with customers, and understand how the data can best be analyzed and leveraged for maximum impact. With robust and comprehensive data management practices in place, insurers can lay the groundwork for powerful AI-driven automation.

A US-based company is leveraging data to facilitate underwriting, claims, and risk management for commercial and residential property insurance carriers. Among other things, the company offers an AI assistant that guides property owners through inspections and claims on their mobile devices. By automatically capturing real-time data, the insurer eliminates the need for professional inspectors and accelerates the underwriting process.

New Digital Capabilities. In addition to AI-driven automation and data management, insurers need to build up capabilities in three areas:

- **A Digital Cockpit.** Insurers must gather quantitative metrics on customer satisfaction and operational efficiency

across all channels and processes—and use these metrics to make decisions.

- A Digital Ecosystem.** With so many innovative services available throughout the digital ecosystem, it's unnecessary to build proactive and preemptive services from scratch; rather, insurers can integrate preexisting services. To create a strong digital ecosystem, insurers must develop a modular architecture with an application programming interface (API) that can quickly integrate external services. They can establish a designated team to scan the market for new opportunities and manage providers. With the right partners, up to 40% of services can be provided via the digital ecosystem. For this reason, an Asia-based insurer is offering an app that integrates user data from its digital ecosystem, including information on health, wealth, education, lifestyle, e-commerce behaviors, and more. This data strengthens agents' online customer management capabilities, enabling them to more efficiently recommend products and services.
- Microstandards.** Microstandards—which are used to quantify service levels by microsegment—are necessary

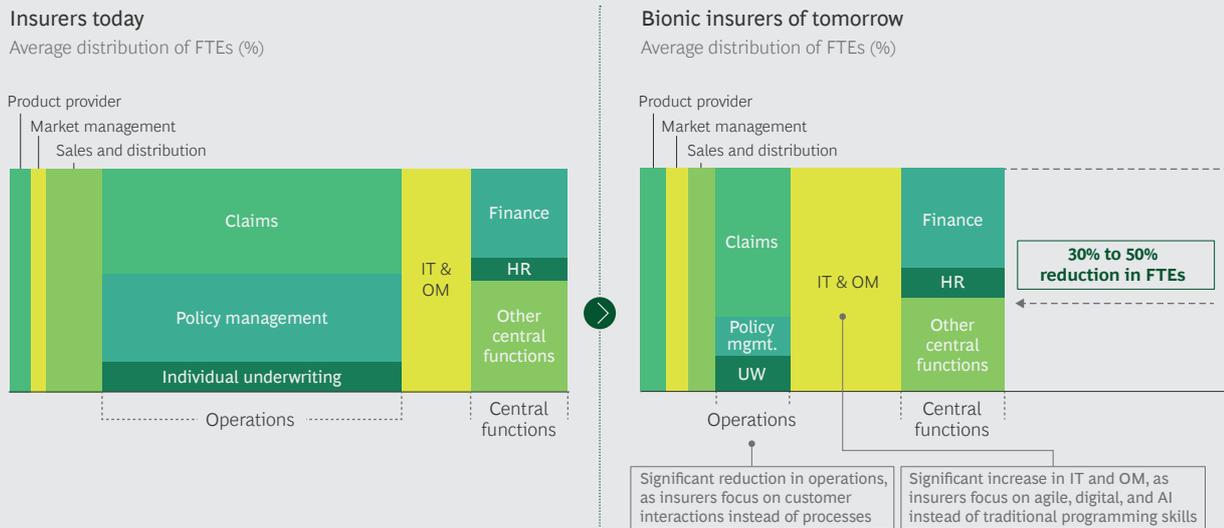
for digitizing customer interactions. They allow insurers to vary service levels by the type of client interaction (rather than customer status) and deliver dynamic mass personalization.

Workforce Changes. Finally, as bionic operations take hold, the size and composition of the workforce will change dramatically. Companies can expect a 30% to 50% reduction in full-time employees who support underwriting, onboarding, claims, and policy management. At the same time, companies will need to invest in building up their digital capabilities by hiring talent in such key areas as agile, user research and experience, and data analysis. (See Exhibit 2.)

The Building Blocks of Bionic Operations

The transition to bionic operations will at first require a heavy lift. But it will pay dividends quickly, and insurers needn't implement the full model all at once. They can generate massive gains by understanding which parts of bionic operations will have the greatest business impact, building those capabilities, and scaling up. (See "Implementation Principles.") And because the data is constantly improving and AI is al-

EXHIBIT 2 | Companies Experience Dramatic Workforce Changes on the Journey Toward Becoming Bionic



Source: BCG analysis.

Note: FTE = full-time equivalent. OM = operations management. UW = underwriting.

IMPLEMENTATION PRINCIPLES

When it comes to digital transformation, the decision on where to start depends on each company's specific goals. Even so, the following principles are universal.

- **Be bold.** Set ambitious targets, such as a 50% cost reduction or a 50-point boost in net promoter score.
- **Think holistically.** Address customer needs across the entire end-to-end journey and anticipate how changes in one part of the business will affect other parts.
- **Implement individual components.** Build and deploy individual enablers, piloting and rolling out delivery components over time.
- **Adopt agile.** Deploy cross-functional, persistent teams with aligned goals, incentives, and agile ways of working.
- **Be focused.** Maintain a strict focus on when and where to invest, and track outcomes meticulously.

ways learning and adapting, insurers will reap the rewards of continuous improvement over time. Companies should take the following four actions to kick off the journey toward becoming bionic.

Transform the customer experience. To improve the customer experience, companies must deliver seamless, no-touch, and personalized services. End-to-end digitization offers the ideal vehicle to deliver better customer outcomes.

Establish a target operating model. To eliminate unnecessary interactions and facilitate high-value ones, companies must build an intelligent and efficient operating model that cascades across the entire business and creates value in new ways. This may require changes to call centers, service hubs, channel strategy, data management, digital ecosystems, tracking and reporting, and microsegmentation.

Build human capabilities. To ensure that the right digital talent is in place to make bionic operations real, companies will need to excel at strategic workforce management. Insurers will need to develop agile ways of working, address reskilling and upskilling, and implement agile at scale. These human enablers ensure that the people and organization are prepared to deliver and scale up new services effortlessly.

Build digital capabilities. To realize their digital ambitions, companies will need to establish platforms powered by AI and data. They'll have to invest in next-generation technologies, APIs, and modular platforms. Companies will also have to upgrade existing IT platforms and infrastructure.

OUR VISION OF bionic operations is not just within reach—it's here. Leading companies are already implementing bionic operations in discrete functions and yielding extraordinary results. This requires a significant investment, but the industry is changing quickly. Companies must set a bold ambition and chart a course for effective and efficient implementation to seize the opportunity.

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