The CIO's Guide to Navigating Modernization in the Insurance Industry

Modernization on the Horizon

The insurance industry today faces a much different business landscape than it did five or 10 years ago.

Although customers still largely purchase policies based on price, they have significantly higher expectations for their experiences. Simply put, they want choice, convenience, and immediate access to easy-to-digest information — all on their preferred device.

At the same time, insurance companies often struggle with uncertainty amid a risk-averse mindset. Will a severe weather event affect property policy payouts? How will the talent war impact the ability to attract and retain not only employees but also customers? What pricing structures and product lines are competitors offering?

Speaking of competitors, increased merger-and-acquisition (M&A) activity and insurance technology (insurtech) startups are further disrupting the industry. Despite a slowdown at the end of 2022, global M&A activity reached a 10-year high last year, according to global law firm Clyde & Co.[1] In line with this trend, Grand View Research[2] estimates that 36% of global insurance revenue was due to the uptake of insurtech solutions in North America alone.

However, the ability to keep pace with changing conditions is typically hampered by slow decision-making at traditional insurance companies. And it's often due to the classic struggle between IT and lines of business.

"IT seeks to or is tasked with reducing costs and increase efficiencies," says Robert Bruno, director, Enterprise Architecture, US Insurance Industry at Kyndryl. "Business leaders want to reduce costs and create more efficient operations, but not at the risk of affecting security and resilience in addition to customer experiences."

Meeting in the middle requires investment in the "right" modernization approach. That will likely mean something different to each insurance company, based on factors such as existing systems, in-house IT talent, and the business's risk appetite.

---

[1]Clyde & Co, global insurance growth report, February 2023 https://www.clydeco.com/en/insights/2023/02/global-insurance-m-a-activity-hits-10-year-high

[2]Grand View Research, insurtech market size, share, and trends analysis report, 2023–2030 https://www.grandviewresearch.com/industry-analysis/insurtech-market

In broad terms, however, rapid access to data is a key component. Furthermore, this data must be connected, no matter where it lives — on a mainframe or in the cloud. Cloud capabilities, for example, can be transformational, but only if the data can be shared and made actionable across the business.

Although many insurance companies have invested in cloud-based applications, they now have to take a hard look at connecting these solutions with their mainframes and legacy systems. Not doing so risks increasing technical debt and limiting agility.

Going on the modernization journey requires an alignment of technical capabilities and desired business outcomes. That includes assessing:

- If the existing IT foundation supports both short- and long-term business goals

- The resilience and responsiveness of IT infrastructure to evolving regulations, security incidents, changing customer preferences, and shifts in the marketplace
- How quickly the organization can act on existing and newly generated data

The following chapters examine the insurance trends dictating the need for IT modernization, the risks of nonaction, key considerations for your organization, and capabilities that help insurance companies navigate the digital business landscape. It also offers guidance about the all-important need for return on investment (ROI).

Insurance Trends and Outlook

Several trends are driving the need for change and modernization within the insurance industry — including customer expectations, highly sophisticated cyberthreats, and worker shortages.

Consumer habits and expectations are changing

The business world constantly seeks to please customers and gain new ones with enhanced services, new products, and frictionless interactions. Thanks to these efforts, individuals have come to appreciate — and ultimately expect — improved customer experiences.

When it comes to the insurance industry, consumers increasingly want to interact and make decisions via the channel and device of their choosing. For example, 69% of customers prefer to buy their auto insurance policies online, according to EY.[3]

In some cases, this requires quickly connecting data from different silos — including customer, operational, and externally sourced data — to deliver a service via a smartphone app. Consider that 86% of Generation Z and millennials and 77% of Generation X and baby boomers want insurers to use data — including weather and location data – to automatically file and pay a claim after a severe weather event damages their property, according to Majesco.[4]

In addition, insurers must consider the need for an omnichannel experience. Consumers may want to conduct insurance research on the web, talk to an agent or advisor on the phone, and ultimately use an insurer's mobile app to buy and maintain their policy.

---

[3]EY, "2021 Global Insurance Outlook" https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/insurance/insurance-pdfs/ey-2021-global-insurance-outlook.pdf

[4]Majesco, 2022 consumer research report https://www.insurancethoughtleadership.com/customer-experience/consumer-trends-signal-change-pc
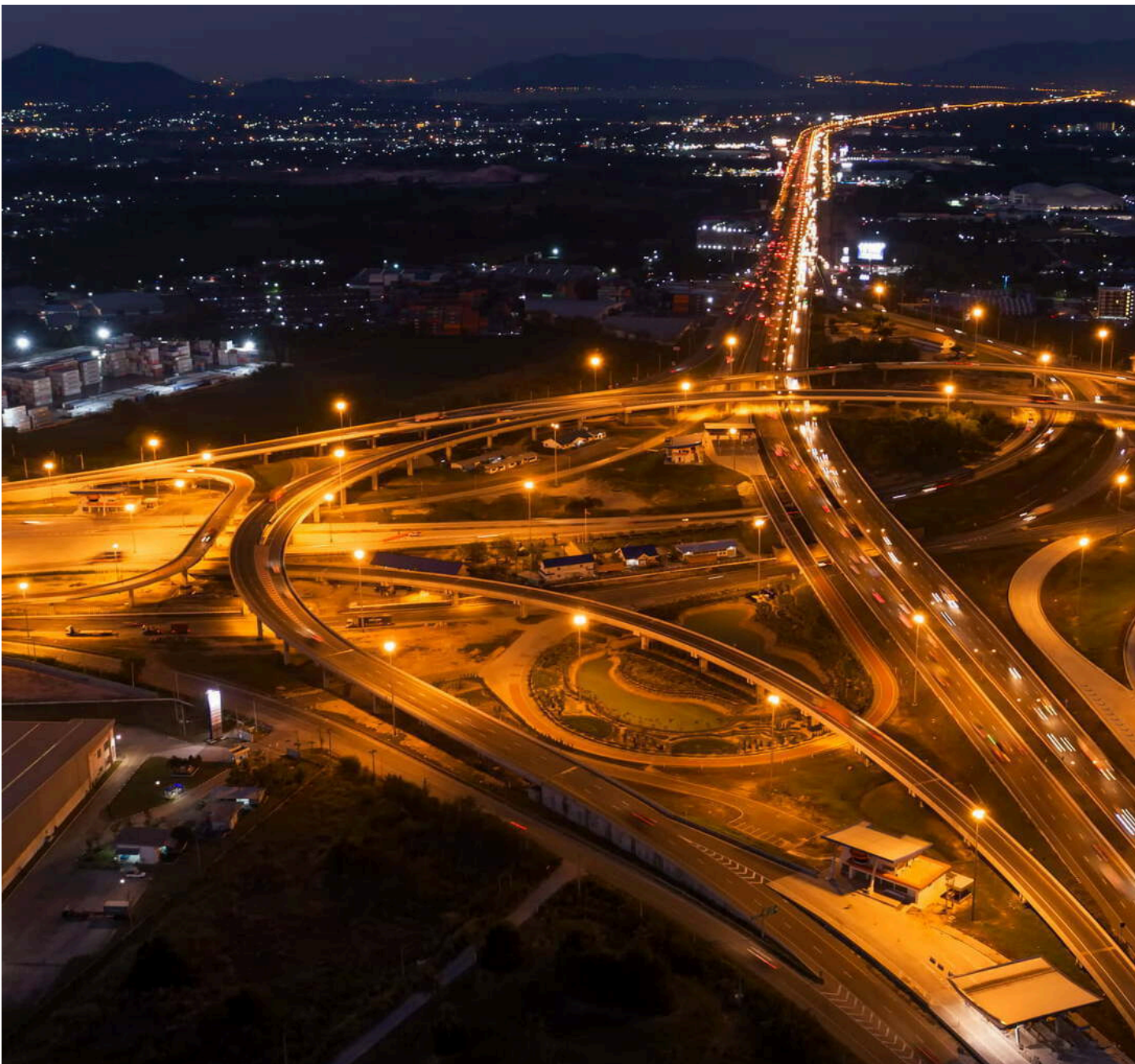
Yet many customers don't want to pay higher policy prices for these flexible experiences. A J.D. Power survey found that 64% of consumers who shop for a new auto policy choose to do so because they have experienced a rate increase of 11% or more.[5]

These scenarios speak to why insurtech solutions and digital insurance providers have increased their market share. They are digitally capable of flexing with customer demands, thanks to their modern IT environment.

Traditional insurers don't need to rip and replace existing IT infrastructure to compete and exceed consumer expectations. However, they should plot a path to modernization that includes short-term wins and long-term returns.

---

[5]J.D. Power, 2022 U.S. insurance shopping study
https://www.jdpower.com/business/press-releases/2022-us-insurance-shopping-study

Cybersecurity: The threats just never stop

Another trend with no end in sight is the need to address cybersecurity. The insurance industry faces two significant risks in this sphere: Companies are vulnerable to cyberattacks directed at them, and cybersecurity insurance providers face challenging decision-making in terms of pricing and underwriting these policies.

Although all businesses are at risk of data breaches and cyberincidents, insurers are prime targets, due to their storage of sensitive data. Customer credentials are financially motivating for hackers, who continually refine their attack techniques — particularly aimed at insurance companies' web applications, according to Verizon.[6]

Now is not the time to do nothing; security gaps and vulnerabilities must be addressed.

"The uptake in hybrid work exposes insurance companies to greater risks of data breaches," says James Carrigan, Jr., vice president, US Security Practice leader at Kyndryl. "Many individuals are working both at home and onsite, connecting to more data and a greater volume of applications via the cloud, which opens up a greater volume of potential vulnerabilities."

It's also difficult to keep up with the evolving demands for cyber insurance, Carrigan says.

"Risk quantification is a struggle," he adds. "For example, if insurers are too aggressive with pricing premiums, customers will go elsewhere. And yet a major ransomware incident can cause catastrophic losses that would result in a significant payout."

An enhanced data model in which insights can be collected and gleaned from multiple systems and sources is increasingly a necessity. Insurers should consider working with providers that can connect existing infrastructure silos for rapid access to data and improved decision-making.
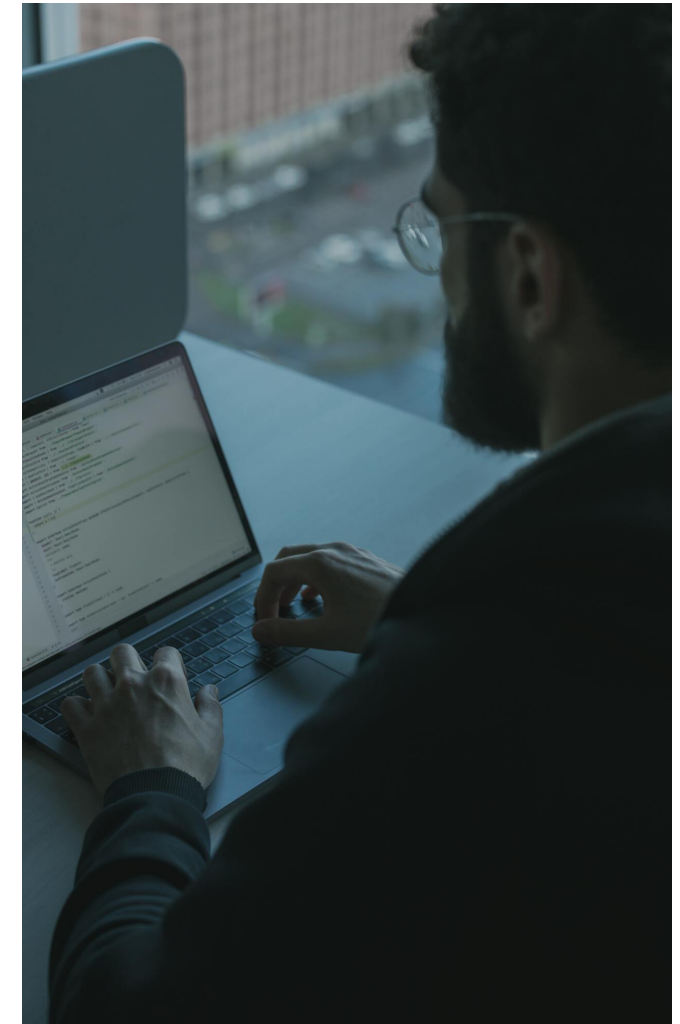
[6]Verizon, "2022 Data Breach Investigations Report" https://www.verizon.com/business/resources/reports/dbir/

Tight labor market restricts ability to innovate

Consumer and security challenges are further exacerbated by workforce shortages. According to Federal Reserve Chairman Jerome Powell,[7] global economies are grappling with a labor market stretched thin because of:

- Baby boomers' aging out of the workforce
- Individuals' being reluctant to return to work following the pandemic
- COVID 19–related deaths
- Ongoing immigration issues
- Declining population growth

Businesses everywhere are fighting for skilled workers, especially IT talent. Despite recent rounds of tech company layoffs, individuals who possess in-demand expertise and certifications — such as developers and IT security and risk professionals[8] — can still negotiate their terms, to a certain extent.
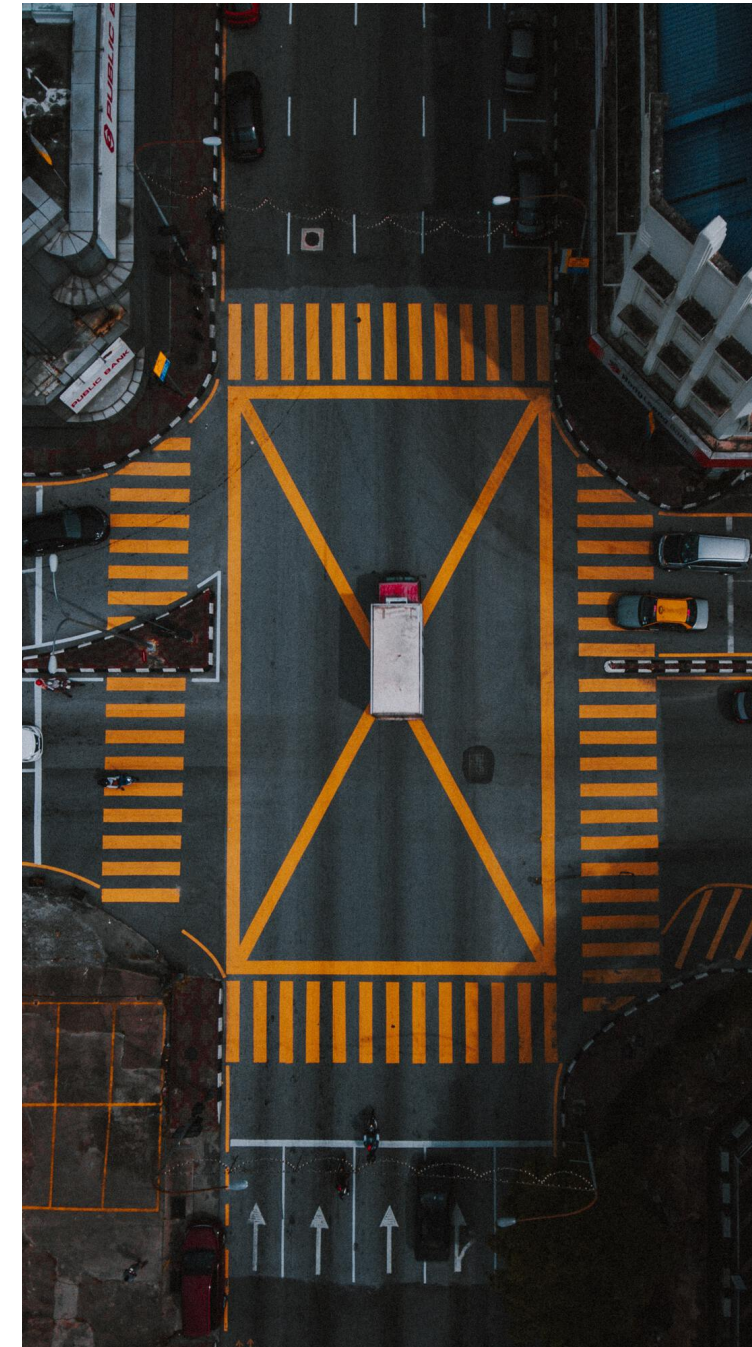
"Top talent is in the driver's seat," Bruno says. "Mainframe professionals are aging out, and many developers want to work only on interesting or innovative projects."

All industries, including insurance, will need to consider strategies to attract and retain workers with difficult-to-find skill sets. Approaches might include leaning into the hybrid work model for some employees and partnering with solution providers that can manage the more mundane or routine IT tasks.

---

[7] https://apnews.com/article/inflation-business-prices-jerome-powell-government-and-politics-9e7fed8f82ffbe9af205ec969e6277af

[8] VentureBeat, December 27, 2022 https://venturebeat.com/programming-development/the-hottest-it-skills-for-2023-even-in-a-recession/

The Risks of Nonaction and Key Considerations

There are other trends affecting the insurance industry, including the need to show value to shareholders, the ever-changing regulatory environment, economic market conditions, and international conflicts.

Yet none of these challenges should act as an excuse for a wait-and-see approach to modernization.

"The COVID-19 pandemic has dramatically increased the need for insurers to digitally transform their business models," says Patrick Van Brussel, research director, IDC Financial Insights.[9] "The ones that will thrive in the coming years are those that will have developed and implemented an enterprise-wide strategy designed to adapt to business disruptions and capitalize on the changed conditions. Now is the time to boldly move forward."

Without a long-term view of data and IT service delivery, legacy infrastructure will pose greater problems, such as:

- Losing out to competitors that are implementing new capabilities for innovation
- Loss of customers who expect a flexible, modern digital experience
- Inability for legacy systems to support the constant growth of data or emerging technologies such as artificial intelligence/ machine learning (AI/ML), predictive analytics, and the internet of things (IoT)
- Inability to respond with agility and accuracy to evolving regulations
- Exploitation of hidden security vulnerabilities by hackers
- Challenges of retaining/hiring tech talent that can support older legacy systems
- Issues in attracting new expertise to support IT innovation

Insurers should also take a more aggressive approach to resilience, beyond just disaster recovery (DR) systems.

"Most insurance companies have taken a capital-intensive approach to DR," Carrigan says. "Yet after a security incident, they struggle to recover quickly. They need to become more 'asset lite' and automated and benchmark critical business processes and data for greater resilience."

---

[9]"IDC FutureScape: Worldwide Insurance 2022 Predictions" https://www.idc.com/getdoc.jsp?containerId=EUR148299821

Essentials for IT modernization

The need for boldness doesn't involve impulsive investments or spontaneous risk-taking. Instead, it requires innovative thinking and an investment strategy that produces short- and long-term ROI.

Here are some questions to guide executive conversations and planning.

1. What is the growth plan?

For example, is it based on geographical expansion, M&A, new product lines, consumer behaviors, or trends? Growth initiatives shape how IT service delivery should be structured as well as help determine the best infrastructure — including a hybrid IT model.

2. Can the organization act on its existing operational and customer data?

Can it quickly adapt based on new data? Consider all the places data currently exists, such as stored in the cloud or data center, within applications, or on end user devices. Also consider the factors — integration, access rights, governance issues — necessary to bring it together to solve problems and innovate.

3. What do customers want and expect?

Consider the ways they interact and their device preferences. These expectations vary by region, generation, risk tolerance, personal budget, and other factors. It's possible that small behavioral nudges can result in big customer experience gains. However, this strategy will require data analytics and AI, for example, to reveal customer insights.

## 4. Will existing systems and in-house IT talent support growth goals?

Or is there a need for new/updated technology and expertise? M&A, for example, may create new data silos that must be integrated or managed. Meanwhile, the expanding use of AI and ML — such as to speed up the underwriting process or improve risk modeling — requires competing for in-demand skill sets.

5. How can cloud further enhance and enable existing IT infrastructure?

Examine ways to tie together cloud investments with mainframe systems for benefits such as cost savings, improved IT and security management, and mitigation of security risks. In many cases, a multicloud or hybrid-cloud strategy is the answer.
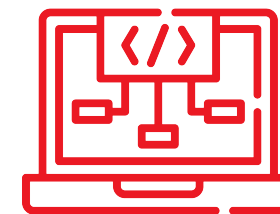
6. What is the confidence level in organizational IT security?

As your insurance company becomes increasingly digital, how are systems designed to protect customer data? Zero-trust practices should be a central component of your security strategy. Another related consideration involves compliance and whether your existing strategies are agile enough to keep up with ever-evolving regulations.
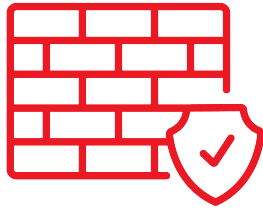
7. **What is the company's short- and long-term plan for a digital workplace?**

It's tempting to play the waiting game, yet Gallup research[10] continues to demonstrate that not only do most employees prefer hybrid-work options but they disengage when forced to return to the office. Within that context, do all types of employees have the tools they need to work onsite and remotely? And does the organization have the necessary IT skills to support existing infrastructure as well as cloud migrations and adoption of emerging technologies?

8. **What are the short- and long-term outlooks for ROI?**

Risk-averse leaders may put off modernization projects that have a long wait for payback. But being shortsighted has its own risks. For example, delays in transforming IT infrastructure can result in losing competitive advantage or legacy systems' being vulnerable to modern-day cyberattacks. Consider ways to achieve quick wins, and determine the measurements necessary to demonstrate progress for long-term investments.

With all these issues to consider, it's not reasonable to expect that any organization can modernize IT overnight. Nor does the effort require multiple years of struggle.

However, as the digitization of business advances, insurance companies must get on the path to modernization. And it starts with addressing the need for several core functionalities.

---

[10]Gallup, January 31, 2023, "6 Trends Leaders Need to Navigate This Year" https://www.gallup.com/workplace/468173/workplace-findings-leaders-need-navigate-year.aspx

Core Capabilities for Navigating the Digital Journey

Insurance companies can open up **endless possibilities by focusing on foundational capabilities**, including mainframe modernization, cyber resilience, and digital experiences.

Mainframe modernization

Achieve speed and innovation without having to rip and replace the mainframe. The key is to connect these legacy systems with the right cloud hyperscaler providers that can enable and extend functionality. Modernizing in this way helps insurers:

- Reduce technical debt and rightsize investments with improved resource and workload allocation
- Connect otherwise siloed data for faster delivery of data and applications to improve both customer and employee experiences
- Enhance the capacity for analytics and AI processing to accelerate the delivery of actionable insights and decision-making
- Begin to address the looming labor shortage in mainframe skills, as employees with these talents age out of the workforce

Cyber resilience

Gain confidence in the ability to quickly recover from security incidents while achieving robust protection of sensitive data and improving compliance. The key is to embed zero-trust technologies and practices throughout the IT stack by working with a proven ecosystem of providers. Doing so enables insurance firms to:

- Demonstrate their ability to recover from any downtime or outage and rapidly respond to attacks
- Gain evidence of an IT infrastructure that is resilient as well as secure.
- Achieve the capability to quickly adjust to or align with ever-evolving regulatory landscape changes in order to achieve improved compliance
- Enable the use of AI and ML models to speed up fraud detection and risk analysis
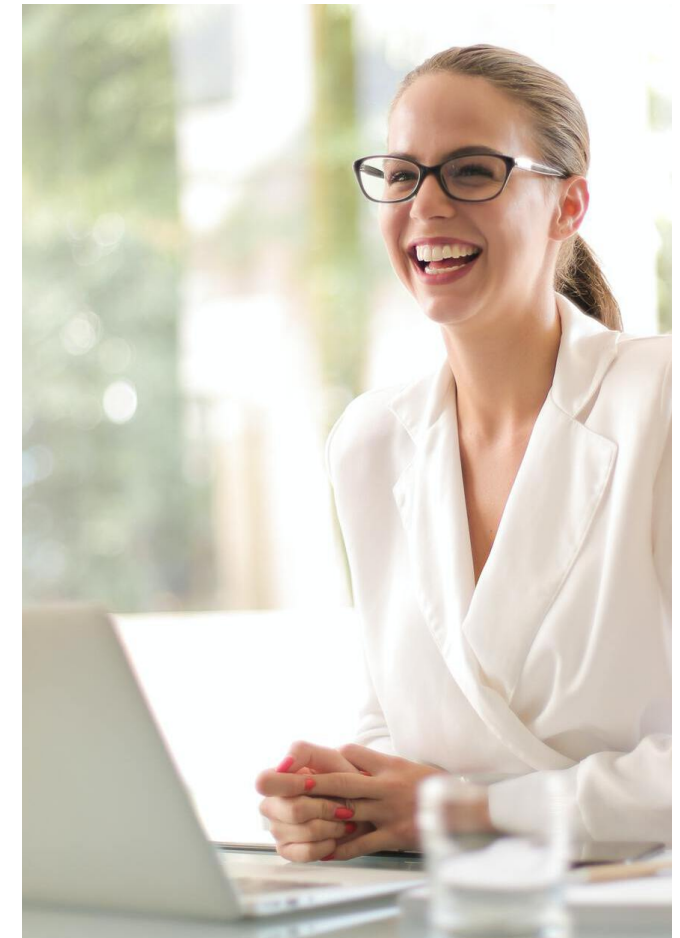
Digital experiences

Provide frictionless customer and employee interactions with the seamless rollout of modern functionalities. A modern digital architecture should connect data silos and be adaptable for omnichannel interactions, no matter what device an individual is using. Insurers that adopt digital workspace technologies can:

- Connect both operational and customer data to optimize service delivery and drive improved insights
- Extend their ability to quickly deliver new products and services to customers
- Personalize customer experiences based on their specific insurance needs, geolocation, budget, or device preference, for example
- Address skills shortages with improved use of services automation

It's likely that your organization has started transforming one or more of these areas. But remember: Your competition is most likely modernizing too. To get ahead, the next step is to align with the right partner ecosystem that can accelerate your efforts and help you achieve measurable results.

The Kyndryl Experience

"Now is the time to grab the opportunity to leapfrog the competition," Bruno says. "Yes, there are reasons to be risk-averse and wait to make big changes.

However, if you kick the can down the road, how far along will your competitors have gotten? And how much more technical debt will you have?"

At the same time, there's no need to do a full rip-and-replace of IT infrastructure. Kyndryl can help insurance companies gain quick wins while working toward long-term, measurable success.

For example, cloud has been called the "great enabler," because it seamlessly provides access to compute resources for rapid IT service delivery. With a strategic plan, there are ways to take advantage of cloud's capabilities for:

- More efficient and effective operations with mainframe modernization
- A more secure and cyber resilient business
- Exceptional employee experiences and interactions

Mainframe modernization

"There are significant benefits to connecting customer and operational data on the mainframe and cloud," Bruno says. "An integrated architecture drives faster insights to improve business outcomes — such as improved underwriting accuracy, better risk management, and increased multichannel experience options for customers."

Another benefit of mainframe modernization is filling skills gaps. As senior IT professionals retire from the workforce, cloud migration reduces the need for expensive expertise to maintain legacy systems. It can also free up skilled resources to work on projects that are more exciting and innovative.

Kyndryl helps insurers design, build, and manage their hybrid environments. It maintains robust partnerships with major hyperscalers — including Microsoft Azure, Google, and AWS — to meet customers' unique requirements.

"Our knowledge base plus relationships with hyperscalers enable our customers to focus on their core business while taking advantage of a modern mainframe and the benefits of cloud," Bruno says.

Cyber resilience

Many companies have used cloud to focus on disaster recovery from incidents such as ransomware attacks, but there's a larger case to be made for resilience through cloud.

"The threat landscape is becoming ever more sophisticated and complex, making it difficult for insurance companies to keep up," Carrigan says. "For resilience, you need strategic partnerships that help you define your most critical business process and data and then lock those up in a cybervault."

The first step is risk quantification. This is where Kyndryl and its partners — including the major hyperscalers as well as application and data security providers — can help insurance companies gain greater resilience

via cloud while also doing a better job of managing risks.

"Our tools can quantify and assess risks so that IT and security leaders can easily demonstrate the organization's overall security posture to executive leadership and the board," Carrigan says.

In addition, the Kyndryl ecosystem can help insurance companies establish zero-trust practices and technologies that protect their entire IT infrastructure.

Exceptional digital experiences

Many enterprises are instituting hybrid workforce models to attract and retain employees. Yet it can be challenging for internal IT teams to build and then manage a secure, compliant, and modern digital workspace across all touchpoints, including devices and applications — while delivering improved digital experiences for customers.

So the first steps are to identify in-house resources with core IT skills, look at their workload, and then decide how best to use their expertise, whether that's for innovation or ongoing IT management.

"Kyndryl can help fill gaps that otherwise hold back organizations from improving customer experiences or building a secure digital workspace," Bruno says. For example, Kyndryl can provide IT talent for "manual maintenance tasks as well as higher-level development and integration processes," he says.

And if you're just getting started in this arena, Kyndryl can provide strategic services ranging from consulting to design, implementation, and management of digital experiences.

The Need for Return on Investment

Finally, a few words about achieving ROI by modernizing and navigating toward digital business.

Certainly, cost efficiency is top of mind for all businesses. And for the traditionally risk-averse insurance industry, the need to demonstrate ROI is a must.

Kyndryl can help insurers deliver short- and long-term returns.

"For example, disaster recovery can be capital-intensive," Carrigan says. "Companies can gain significant cost efficiencies while maintaining security and compliance, with a service-based model."

Adoption of AI/ML and automation also provides rapid returns on investment in the insurance industry.

"We see insurers using AI for improved risk ratings, fraud detection, and faster policy quoting," Bruno says. "For lines of business, these implementations translate to faster sales cycles, greater productivity, cost reductions, and better risk management."

Many insurance companies have adopted automated services, and there are opportunities to extend automation for even greater returns.

"The industry has made great strides within the last three years in terms of automating processes to reduce the cost of business," Bruno says. "But they now need to look at aligning automation with compliance and cybersecurity efforts, for example, for further efficiencies and to better protect their clients."

At the end of the day, insurers need to spend money to modernize and gain cost efficiencies, Bruno says.

"Multiple forces are at play — such as remote work, new security vulnerabilities, labor shortages, and the rise of digital competitors," he says. "Insurance companies need to examine their IT infrastructure and seriously ask whether it's secure, resilient, compliant, and flexible for whatever comes next."

CIO

Thank you for reading

The CIO's Guide to Navigating Modernization in the Insurance Industry