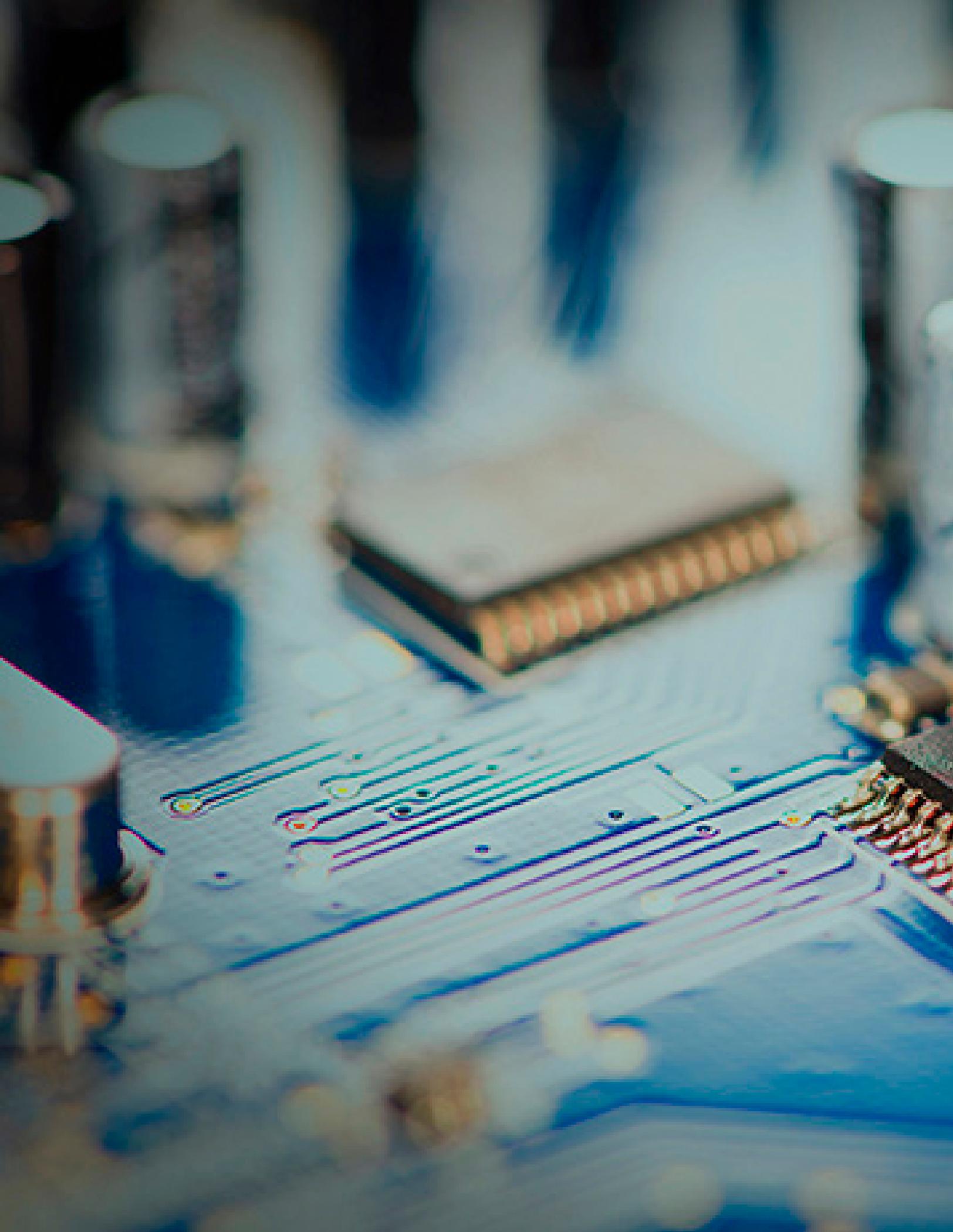


# The AI Revolution in Insurance: A Reality Check

Don't bid farewell to your insurance agent just yet.  
NTT DATA Consulting provides a reality check on AI's  
transformative impact on the insurance industry.

June 2016





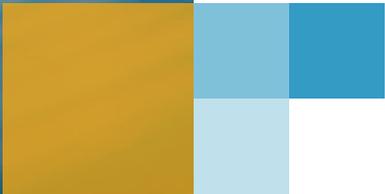
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**“The possibilities for a technology revolution in insurance are indeed endless with the rise of AI, robots, and robo-advisors. But what if this revolution could produce more heroes than casualties? What if rather than being replaced by these technologies, humans could be made better, stronger, and faster by them?”**

— LISA WOODLEY, VICE PRESIDENT,  
DIGITAL EXPERIENCE, NTT DATA



# The Evolving Role of Humans in Insurance

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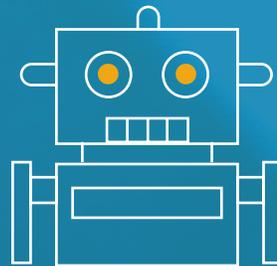
The end is nigh. Flawed human beings cannot compete with the perfection of machine intelligence. We are being replaced, resistance is futile, and insurance is next! Just look at the writing on the wall. “Your next insurance agent will be a robot,” confidently reports *c/net*.<sup>1</sup> “How Artificial Intelligence Will Eliminate the Need for the Vast Majority of Insurance Agents” declares *Forbes*.<sup>2</sup> *ZDNet*<sup>3</sup> takes it a step further, listing “The first 10 jobs that will be automated by AI and robots” — with “insurance underwriter” coming in at number six.

Hyperbole makes great headlines, but is it really true? Do agents and underwriters need to start enrolling in “obsolete human” retraining? Should insurance executives dump all their dollars into robotic agents and underwriters?

All these headlines like to portray technology evolution as an either/or scenario: survival of the fittest with AI on top. But AI isn't another species. It's part of us. Created by us as a way to enhance ourselves. AI won't replace humans; it will evolve us. As a leading provider of IT services to the insurance industry, NTT DATA believes that advanced technologies have huge potential to transform our clients' businesses — not by replacing people, but by empowering them to do more and do it better.



Consumers have mixed feelings about robo-advisors.



35%

said they have **some interest in working with a robo-advisor**  
(46% Gen X, 24% Boomers)<sup>4</sup>

10%

would be comfortable having their relationship with their financial advisor **exist entirely online**<sup>4</sup>

## The Very Real Impact of AI

It's true. After years of hype and slow progress, the era of AI and machine learning is finally here — and accelerating. The primary reason is that once costly neural networks — essential to modeling how the human brain functions — are now more affordable and accessible.

We are beginning to see a new generation of smarter machines that can do the more complex work previously only humans could do — from self-driving cars and instant translation to thinking machines with associative memory reportedly in development at Russia's Lobachevsky University.

## Why Agents and Underwriters?

**What is it that makes them such a likely target for replacement by machines?**

From the carriers' perspective, increased automation reduces manual tasks, creating opportunities to increase efficiency and cut costs. The *Forbes*<sup>5</sup> article notes that a "robo-life agent" can build portfolios, facilitate underwriting, and monitor policies for far lower costs than live agents. Similarly, ZDNet<sup>6</sup> sees underwriters as easily replaceable because computers can be taught to learn and apply eligibility rules.

There is another, equally significant factor at work. The rise of disruptive technologies in insurance is a reflection of customers' dissatisfaction with the insurance industry's traditionally slow and customer-unfriendly business processes. Digital consumers increasingly prefer self-service purchasing and servicing models. Many InsurTech innovators hold the promise of delivering a more personalized, customer-centric insurance buying experience. Underwriting also is evolving thanks to connected devices and sensors.

These advancements provide continual risk and loss data input that can dramatically speed up and continuously refine automated underwriting and pricing models. InsurTech innovators are harnessing this wealth of new data to be more effective and quickly re-price insurance products to achieve underwriting profitability for the customer's benefit.

## The Reality Check

**Based on NTT DATA Consulting's experience, we see the pressure to adopt robo-agents and cyber-underwriters being balanced by two key factors:**

**(1) complexity and (2) emotion**

Insurance buyers' needs can change dramatically over the course of their lifespan and when certain life events occur, such as purchasing a home or the addition of teen drivers. In response, insurance products have a tremendous range of complexity for dealing with these various situations. While some products are very straightforward, the clear trend is toward increasingly complex insurance products, requiring customers to choose from various deductible amounts, deductible types, coverage options, limits, pricing options, and available discounts.

This complexity leads to confusion and ultimately fear: Am I paying too much? Am I fully covered? Am I with the right carrier? Guiding customers through their options and addressing their fears are the core value-add services that agents perform. This is the work that machines and automation can never fully displace, and that carriers continue to value, even as efficiencies are gained through robotics and automation.

At the same time, data complexity is increasing. Underwriters are inundated with information from both their customers and third parties. While it is true that AI can help crunch the risk data much faster, the question is what conclusions are to be drawn from the data? Here again, the human judgment of an underwriter becomes difficult to replace.

Where does this leave the insurance industry? How can carriers leverage the promise of AI while balancing it against product and data complexity and the customer's emotion?



### Let machines do what they do best

It's about enhancement, not replacement. Rather than replacing employees with robotic agents, insurance companies should invest their IT dollars to enhance the performance of agents and underwriters by providing them with better data and tools. Free the humans from the mundane administrative tasks easily handled by a machine. Think Iron Man, not Robo-Agents.



### Let humans do what they do best

Human judgment is critical to decision-making. Only so many factors in underwriting and decision-making can be reduced to a set of pre-established rules. When it comes to understanding customer needs and properly gauging risk, the experience and judgment of both agent and underwriter — often in collaboration with one another — are essential to making good policy decisions.



### Enable the agent as educator, guide, and confidant

As the variety and complexity of policy choices proliferate, agents play an increasingly vital role in product education, particularly for complex personal lines and commercial customers. For these complex products, buyers seek out personal advice and insurance carriers want to enable the advisor relationship to drive sales, increase up- and cross-selling, and inspire enduring loyalty to the carrier's brand. Our view is that human agents will continue to be the primary drivers of this.



### Look beyond the demographics

Customer needs become more complex over time. While Millennials may be driving the demand for automated self-service digital offerings now, their insurance needs will inevitably evolve as they age. As their lives and economic situations become more complex, they'll need more detailed and nuanced policies and require the more sophisticated guidance that only a human agent can provide.



### Remember insurance is a relationship business

For certain customers and situations, only a real person will do. Customers may be more than willing to shop online for insurance — exploring options and comparing choices — but when it comes to filing claims or even discussing policy issues, they insist on dealing with a real human being. According to a survey conducted by Allianz<sup>7</sup>, 69% of Baby Boomer and Generation X Americans said they do not trust advice found online and prefer to build personal relationships. The empathy, knowledge, and support provided by agents and claims adjusters can strengthen the carrier's bond with customers and solidify the relationship for years to come.

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**“For customers, help from an insurance agent is vital because the product gets even more complex. You want someone to explain features and benefits to you.”**

— KATIE LIBBE, VICE PRESIDENT OF CONSUMER INSIGHTS, ALLIANZ

# Carriers Are Critical to Successful Agent Evolution

32%

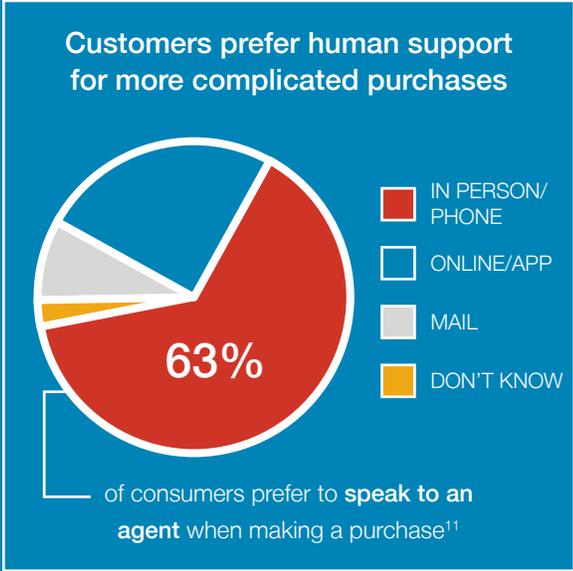
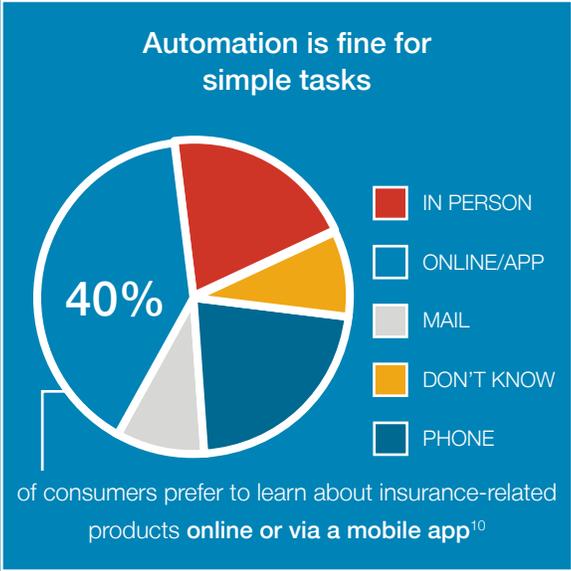
of P&C personal lines

insurance sales advice and quotes are provided through digital channels today<sup>8</sup>

80%

of agent respondents

said they are still having trouble analyzing data fast enough to meet customer demand<sup>9</sup>



AI, robots, and robo-advisors will continue to mature and will undoubtedly have a growing impact on the insurance industry and many other aspects of our lives. The more pressing question is how carriers should invest today to maintain their competitiveness and prepare for the future.

- JOEL COLLAMER, VICE PRESIDENT, INSURANCE CONSULTING PRACTICE LEAD, NTT DATA

## Where to Invest

AI and machine learning will continue to mature and undoubtedly have a growing impact on the insurance industry — and many other aspects of our lives — as time goes on. The more pressing question is how carriers should invest today to maintain their competitiveness and prepare for the future. As carriers consider building robo-agents and robo-underwriters, we recommend the following parallel actions:

### Identify where AI makes sense:

Assess each area of your business and consider where an automated solution might be preferable or more effective than a human — fraud detection, for example. Understand your customers. What are their needs? Map the customer journey to identify opportunities for automation and self-service and understand where human interaction is required.

### Use AI and other technology improvements to better support human agents and underwriters:

We frequently hear from our insurance clients that their senior underwriters typically spend more than 50% of their day attending to low value activities, leaving less than 50% of their time to conduct the strategic activities for which they were hired. It has been estimated that underwriters spend 70% of their time performing low-value tasks, such as searching, aggregating, and selecting data, and only 30% of their time in risk selection. By applying AI and machine learning to data aggregation and selection, you'll enable underwriters to more quickly and easily identify the patterns that can help them reduce risk.

Similarly, insurance agents are often required to learn and use multiple systems, re-enter information unnecessarily, and perform other time-consuming manual processes. In a recent study conducted by NTT DATA of more than 1,700 independent agents, the number-one request of agents was for carriers to better integrate into agency management systems. Simply eliminating an extra login and delivering the data they need in the system they already use would be a

significant productivity booster.

### Improve the quality and use of the data in your organization and your ecosystem:

Insurance carriers gather and store massive amounts of data — both structured and unstructured — but many of them still struggle with putting that data to work. The problem is stovepiped legacy systems that inhibit data sharing, reuse, and analytics. It is compounded by a lack of usability of the vast amount of data that exists beyond corporate systems in the carriers' data ecosystem. To make greater use of all data, carriers need to: understand their data ecosystem (where the data lives); identify their data goals (what they need to know from the data); and put systems in place that can aggregate the meaningful data and serve it up in one place where it can be accessed, analyzed, and acted upon.

## The Future Won't Wait

**“Prediction is very difficult, especially if it's about the future.”**

— NIELS BOHR, NOBEL-PRIZE WINNING PHYSICIST

Despite the unknowns, several things are certain. We can be sure that advancements in AI will continue to find their way into commercial applications. We can also count on these advancements to demand more and more data to fuel their increasingly sophisticated capabilities. For carriers, the meaning is clear: start mastering your data assets now so you are ready and able to take advantage of the AI-powered future.

## Five Essential Questions to Ask Before Jumping into a Robo-Future

01

Do you understand your customers? Not just their demographics but where they are in their lives. What do they need from their insurance? Is it a commodity for them or do they want to be guided?

02

Do you understand their end-to-end journey? Automation and self-service can be hugely beneficial, but only if they are implemented at the right time and in the right context for your customers' needs.

03

Do you understand your agents and underwriters? What do they do that is uniquely human? What tedious tasks are preventing them from focusing on more value-added work?

04

Is your data ecosystem in order? Garbage in. Garbage out. Both robo-agents and robo-underwriters are only as good as the data they work with.

05

Do you have your products clearly categorized based on level of complexity? Understanding which products can be pushed via self-service versus which ones may benefit from the guidance of an agent is essential to understanding when you need a human instead of, or along with, a machine.

### CASE STUDY

#### Self-Service P&C Portal that Reaches More Customers

##### CHALLENGE

Create an intuitive web and mobile solution for customers and agents that provides customers with self-service tools while staying agent-centric.

##### SOLUTION

##### A digital transformation strategy that:

- Addresses demands of client's competitive landscape
- Defines experience objectives by audience
- Leverages analytics to personalize experiences and drive real-time cross selling opportunities

##### RESULT

With NTT DATA's digital blueprint, IP, and accelerators, our client is reinforcing its brand, creating an omni-channel customer experience, and building complementary distribution channels.

## Authors

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**Lisa Woodley | Vice President, Digital Experience, NTT DATA**

[lisa.woodley@nttdata.com](mailto:lisa.woodley@nttdata.com)

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**Joel Collamer | Vice President, Insurance Consulting Practice Lead, NTT DATA**

[joel.collamer@nttdata.com](mailto:joel.collamer@nttdata.com)

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## About NTT DATA Consulting

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NTT DATA Consulting takes an industry-centric approach to business and technology consulting. We seamlessly integrate business strategies and enabling technology to help clients accelerate business-driven transformation and compete in the digital world. NTT DATA Consulting has the unique ability to create end-to-end solutions by tapping the entirety of NTT DATA's global technology and business process capabilities. In financial services, our 1,000-plus business consultants and 4,000 technology experts work with 25 of the leading financial institutions in North America. Visit [www.nttdata.com/USconsulting](http://www.nttdata.com/USconsulting) to learn more.

## About NTT DATA

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NTT DATA is a leading business and IT services provider and global innovation partner with 80,000 professionals based in over 40 countries. NTT DATA emphasizes long-term commitment and combines global reach and local intimacy to provide premier professional services, including consulting, digital, managed services, and industry solutions. We're part of NTT Group, one of the world's largest technology services companies, generating more than \$100 billion in annual revenues and partner to 80% of the Fortune 100. Visit [www.nttdata.com/americas](http://www.nttdata.com/americas) to learn more.

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[www.nttdata.com/usconsulting](http://www.nttdata.com/usconsulting)

704.936.1600

[ntt.data.consulting@nttdata.com](mailto:ntt.data.consulting@nttdata.com)

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