



**Technology in the mid-market**  
Embracing disruption

August 2018

# About the survey

From May 16 to June 4, 2018, a Deloitte survey of mid-market companies was conducted by OnResearch, a market research firm. The survey examined technology trends taking place in this market segment to determine the role that technology plays and how it influences business decisions.

The 500 survey respondents represented mid-market companies with annual revenues ranging from \$100 million to a little more than \$1 billion. Half of the respondents were C-suite executives, while the remaining executives held other management roles. Eighty percent of the respondents represented companies that are privately held, while the remainder were publicly traded firms. Thirty-three percent of the respondents were from consumer and industrial products companies; 24 percent represented technology, media and telecommunications companies; the remainder were divided among energy and resources, financial services, life sciences and health care, and other industries.

The full survey results are included in a separate appendix; some percentages in the charts throughout this report may not add up to 100 percent due to rounding, or for questions where survey participants had the option to choose multiple responses.

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## Executive summary



Roger Nanney



Doug Beaudoin

# Man versus machine— it's one of the oldest storylines in Hollywood.

And for good reason—there's a natural tension in the relationship between humans and technology. If the robots can replace us, what are we left to do? Plenty, it turns out.

For the first time, this year's Deloitte Private mid-market technology survey tackles the talent dimensions of IT investments. What we found is that in many cases, technology is augmenting workers rather than rendering them obsolete. The nature of work is shifting from low-value, routine tasks to higher-order analysis and invention. And through this process, private companies are enjoying myriad benefits, from increased productivity to better customer engagement to forming whole new business lines.

Rather than being left out, employees are sharing in technology's bounty in a number of ways:

- **New jobs:** Nearly half of the survey companies report plans to hire more than they did before implementing new technologies, and only a quarter think they will require fewer people.
- **New skills:** The private companies say reskilling employees has the greatest impact on their efforts to technologically augment their workforce.
- **New flexibility:** Companies plan to increasingly rely on "gig workers"—contract-based or non-full-time, flex employees—to help meet their strategic goals for technology.

Technology is touching just about every area of operations, necessitating a new level of collaboration and sharing of responsibility between C-suite technology leaders and those running individual business lines. Information security concerns are bringing private company leaders together in new ways. They're also aligning around IT solutions involving the cloud, the Internet of Things, machine intelligence, and cognitive computing. Despite all the teamwork, though, our survey shows some companies have a way to go in setting formal policies and procedures to help balance technology's opportunities and risks.

These are exciting times to be running a private enterprise, and technology is a big part of that story. In the pages that follow, you will see through data and anecdotes how private companies are investing across the spectrum of digital solutions, and where they're having the greatest impact in their organizations. While the companies interviewed for this report did not participate in the survey, their technology-related strategies reinforce many of the survey findings and highlight issues and trends.

As always, it is our hope that the insights contained within may help inform your investments in technology and bring the future forward.




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## Restyling the workforce



It seems every day  
we're treated to news  
stories of machines  
doing work once  
performed by humans.

In addition to taking over assembly lines, robots can now operate massive tractors to help farmers produce more crops, analyze magnetic resonance images, run online chat groups, and even give massages and flip hamburgers. In our survey, half of the respondents expect automated systems to engage with people or acquire humanlike expertise in the next one to two years.

And, yet, companies continue to need workers and cite skills shortages as a major impediment to growth. For many, technology is upping the stakes when it comes to finding and holding on to talent. Consider that in this year's survey, 46 percent of the private company leaders say they plan to hire more people than they did before implementing new technologies, while only 26 percent say they'll require fewer people.

Some call it the “new collar” economy.<sup>1</sup> In this bustling segment of the labor market, app developers, data technicians, and project managers are in hot demand. In practice, though, talent remains hard to come by in an extremely tight labor market. For the first time on record, there are more job openings than people to fill them.<sup>2</sup> The shortage of working-age candidates is so severe that some cities and states have resorted to paying cash incentives to attract potential workers.<sup>3</sup>

Executives say the increasing focus on knowledge workers is driving the trend. “For every person we add to our team, we get much more productivity than we would in a pre-cloud, pre-automation, pre-machine learning world,” says Tom Matzzie, CEO of CleanChoice Energy, a Washington, DC-based renewable energy company. “It’s easier to justify additional personnel.”

Will you be hiring more people than you did before implementing new technologies, or fewer?

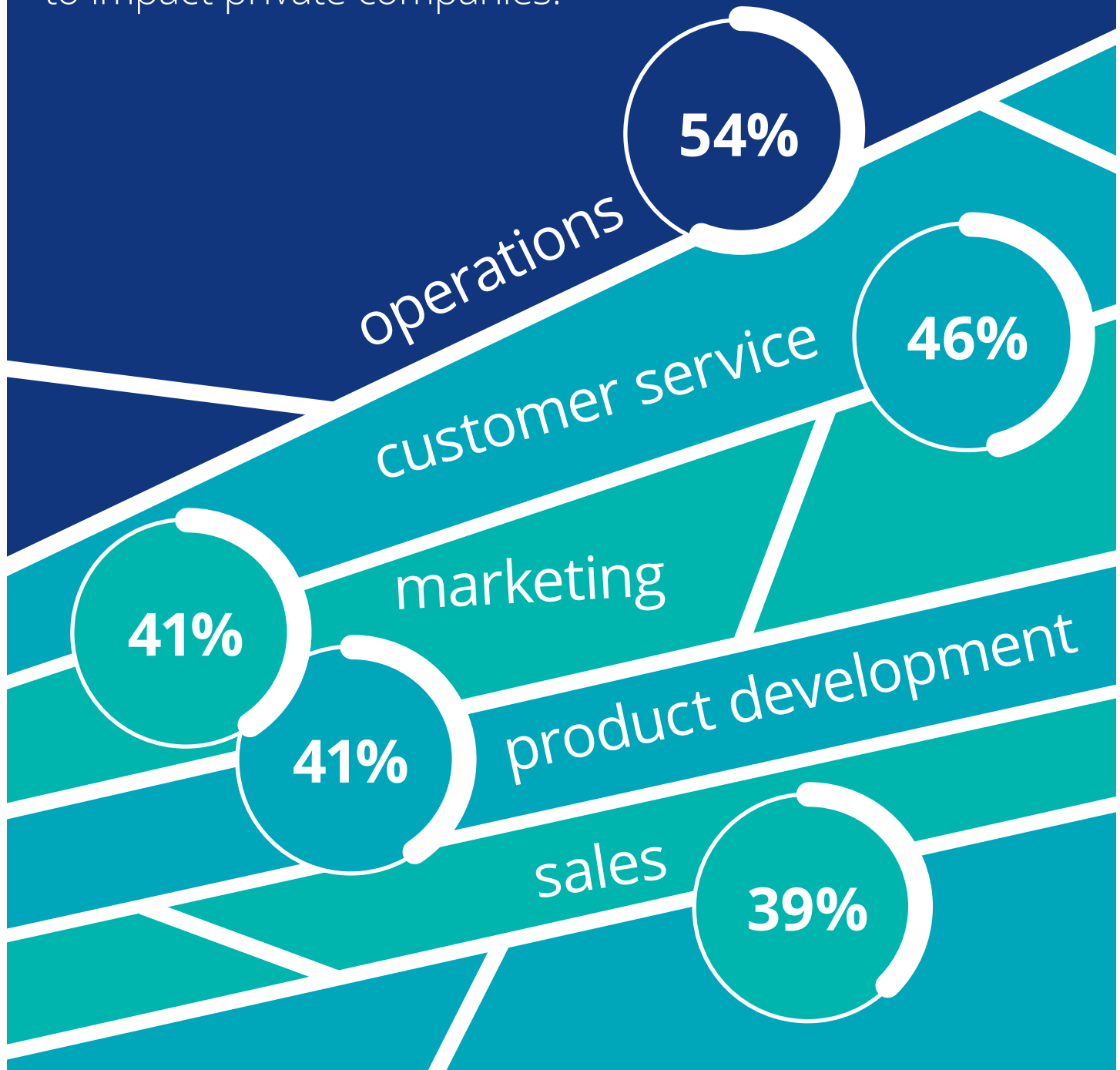


“For every person we add to our team, we get much more productivity than we would in a pre-cloud, pre-automation, pre-machine learning world.”

Tom Matzzie—CEO, CleanChoice Energy



In what areas is digital disruption most likely to impact private companies?





### Reskilling

As technology transforms nearly every task, position, and organization in the marketplace, private companies recognize that there's an urgent need to prepare their existing workers for this shift. Our survey found digital disruption is likely to have a broad-based impact across private companies, led by operations (chosen by 54 percent of the respondents). Customer service (46 percent), marketing (41 percent), product development (41 percent), and sales (39 percent) also rate highly.

The executives point to reskilling and redesigning jobs as their top two talent-related priorities as they seek to augment the workforce through technology. The cycle has come full circle, from mandates for vocational education in the 1960s to downturns in manufacturing in the 1980s, to the modern workplace, where machines and people work in sync. If companies can reorient their teams to realize the greatest benefit from emerging technologies,

and if companies can redesign jobs to make it easier for people and machines to work together, business leaders assert they can achieve **a stronger position in the marketplace.**

### Recruiting

Jobs designed for people with highly specialized capabilities are clearly increasing, but the supply of qualified workers isn't keeping pace and business leaders insist workforce preparation simply hasn't kept up with the modern nature of jobs.<sup>4</sup>

Some organizations are therefore focused on the talent of the future. For the first time in our survey, respondents provided insight into how they plan to harness the best of future talent in Gen Z, the generation born after 1995 and comprising the latest generation to enter the workforce. A majority of respondents—64 percent—say they are working to develop new talent strategies to attract, recruit, and retain an inclusive workforce. But a majority of the executives cite other approaches to improve the experience of Gen Z employees: using experiential learning methods such as gamification (58 percent), increasing their focus on flexibility and well-being programs (55 percent), and driving a culture of open and transparent communication with leadership (52 percent).

The respondents also are addressing talent shortages and other challenges through new relationships with contract workers in the so-called gig economy. New evidence from the Bureau of Labor Statistics suggests that the share of workers employed as independent contractors may be smaller than once believed.<sup>5</sup> But this may well be a short-term phenomenon. The companies in our survey are finding a lot of use for gig workers and they have big plans for them in the future.<sup>6</sup> Most critically, private company leaders say gig workers have allowed their firms to become more agile in product development and customer service delivery. Contract workers have also allowed firms to be more flexible in engaging with a more diverse pool of workers, and they have even helped accelerate the development of new lines of business.

## Private company CHRO: Leading digitally focused learning

The role of HR leaders has evolved from administrative tasks such as compensation and benefits to a broader portfolio led by the chief human resources officer (CHRO), including attracting and retaining talent, learning and development, managing people analytics, and executing high-level strategy aligned to business goals.<sup>7</sup>

Within the CHRO portfolio, employee learning and development is in need of a refresh. A 2017 employer survey by Bersin by Deloitte found that more than half of the respondents did not have learning programs to build the skills of the future.<sup>8</sup>

Talent leaders can bring digitally-focused learning to their organizations in a few critical ways:

- Assessing how individuals, teams, and organizations figure out how people and machines can work together, and designing learning programs so people can navigate the changing roles.
- Taking advantage of online networks and knowledge sharing through massive online open courses (MOOCs) that can be customized for learners and organizations of any size.
- Building digital learning into leadership succession practices to build a pipeline of future-ready executives.



# CleanChoice Energy: Harnessing emerging tech for renewable power

Tom Matzzie, founder and CEO of CleanChoice Energy, says the utility sector is ripe for technological disruption. A patchwork of rules from states that have either partially or completely regulated electricity markets continues to define the pace of innovation, he says. But as consumers demand new options to power their homes through renewable energy, Matzzie believes that momentum will benefit his customers and the environment.

"We're seeing developments in renewable energy and clean tech, as well as the acceleration of cloud computing, machine learning, and artificial intelligence," Matzzie says. "Whether it's low-cost energy storage, smart home devices, or electric vehicles, there will be opportunities for consumers as we rebuild the electric system to be clean and sustainable over the next 30 years."

Those ambitions echo the company's mission to switch as many American homes and businesses to clean, renewable energy as possible. With a B Corp designation for its commitment to social and environmental performance, CleanChoice does business in eight states and the District of Columbia. Founded in 2010, the company also operates "community solar" farms from which customers can subscribe to get the benefits of solar energy as if the panels were on their roofs.

It's technologies such as cloud computing where Matzzie sees the company as a differentiator, however. He points to the triple effects of price, speed, and quality: "The low cost, ubiquitous availability of cloud computing, and how you can get really big computing power very inexpensively, very fast now through web services—that did not exist 10 years ago, and certainly not at the scale we're talking about today," Matzzie says. "Things that 15 years ago would take us weeks to complete in terms of computations now take us a few minutes. Computing power in the cloud has now enabled machine learning tools to help do classifications and build models for us for customer behaviors, and probabilities and predictions, to help us run the business in a very sophisticated way."

We use machine learning to predict probability that a lead will enroll for our service, and to predict their likelihood to leave us as a customer.

Tom Matzzie  
Founder and CEO, CleanChoice Energy

Matzzie also says machine learning technologies have transformed the business from manual to automated processes. "We use machine learning to predict probability that a lead will enroll for our service, and to predict their likelihood to leave us as a customer, so we can intervene and make them a better offer or provide some incentive to them," Matzzie says. "It used to be you did it twice or three times a year. Now we do it every day."

Automation has been a part of CleanChoice's strategy since its origins. In this year's survey, two-thirds of respondents said they are focusing on robotic process automation to handle high-volume, labor intensive document processing tasks. Matzzie offers the example of enrolling and onboarding new customers. Using automation, they are able to carry out the process on unique schedules for thousands of customers at once, and following up in the days and weeks after they enroll for service.

"Ten or 15 years ago, we would just have everyone be on the same schedule, and there'd be someone who'd create the newsletter or the communication for the customer base," Matzzie says. "There weren't sufficient tools out there to be able to create that business process automation. Now we can hyper-personalize the customer experience because of automation, and the automation of that customer journey and that experience is critical to being able to scale."

Getting to scale requires new skills, and that means recruiting talent who are "technology natives," according to Matzzie. "It's not business first, technology second," he says. "Everyone needs to understand data and how technology can help them solve problems."

## Regrouping for growth



# Corporate investment in technology is an all-hands effort these days.

Marketers focus on topics like search engine optimization (SEO), but also the procurement and use of data tools to track and predict customer sentiment. Talent managers operate in a hyper-connected workplace where collaboration platforms and “work-based” social media have become the norm—so they’re putting tools in place to keep workers productive and happy. Finance leaders use cognitive tools to detect patterns across vast volumes of data, yielding economic benefits for their businesses.

Private companies are dipping into the well to seed all of these investments. More than half of the mid-market survey respondents—57 percent—say they’re spending more on technology this year than a year ago, while 17 percent call their IT spend “significantly higher.” A full third of the respondents—33 percent—say their company spends at least 5 percent of their revenue on technology. Another 45 percent say they spend between 1 percent and 5 percent of their revenue.

And 10 percent don’t currently have a separate, identifiable spend, suggesting technology investments are so routine at some companies that they are difficult to track.

Rising revenues are giving private companies more fuel to spend on technology, but so is Washington. More than 4 out of 10 of the executives surveyed say they are expanding investments in emerging technologies as a direct result of US corporate tax reform legislation passed in December 2017. Others cited the tax legislation as a driving force behind a number of other strategic initiatives.

“Aspects of the sweeping 2017 US tax legislation may provide private companies with cash to invest in future growth, and it’s not surprising that they’re looking to technology to boost those efforts,” says Wolfe Tone, partner and Deloitte Private tax leader, Deloitte Tax LLP.

57%

are  
spending  
more  
on tech



**33%** say their company spends at least five percent of their revenue on technology

**45%** say they spend between one and five percent

**10%** don't have a separate, identifiable spend



### IT priorities

The questions private company leaders are grappling with include how to prioritize these investments, how to manage them, and how to ensure they are translating into growth.

Our survey reveals that protecting data and systems remains top of mind. Information security ranks as the top IT investment priority, at 38 percent, and it's expected to have the biggest impact on business over the next 12 months.



## Private companies are doing a number of things to **bolster their defenses**,

from implementing new information security processes, to preventing threats through monitoring and detection, to educating employees about risks.

Another area executives are prioritizing is operations. Private companies have signaled in this year's survey that digital disruption is mostly likely to affect operations—areas such as supply chains, financial reporting, or overhauling business units.

Meanwhile, more than half of respondents (55 percent) ranked the reduction of operational costs as one of the top three most significant impacts of digital disruption.

"Today's tools and approaches make it a lot easier to transform and optimize operational processes," says Ranjit Bawa, principal and cloud leader for technology, Deloitte Consulting LLP. "The principles of agile software development, cloud-based development operations, and service-based architecture can radically improve effectiveness and efficiency of an organization embracing the cloud."

Private companies also are marshalling digital disruption for competitive gain by enabling new types of customer interactions. Customer pursuits continue to drive analytics investments—almost 60 percent of respondents say they are using analytics for sales and customer management activities, consistent with trends from the previous two surveys. And for the third consecutive year, the share of respondents who say they are using analytics for marketing is up (48 percent).

38%

rank  
information  
security as  
the top IT  
investment  
priority



How are private  
companies bolstering  
their defenses?



new information security processes

monitoring and detection

educating employees about risks



### Machine learning, automation

More than half of the respondents (57 percent) also say they are using machine learning for predictive analysis of business outcomes, while 41 percent use it to read and encode human communication for data processing. However, the use of these tech tools is flat or has decreased across several business dimensions, survey responses show.

But humans still have to manage the technology. Two-thirds of respondents say they are focusing their use of robotic process automation (RPA) on high-volume, labor-intensive tasks. Notably, there was a significant decline in the share of the

respondents using machine intelligence to read and encode human communication, an indication of the ongoing challenges of coding for difficult and nuanced human communication.

“Whether organizations want to map images or capture text or other types of information, there are a growing number of possibilities to augment human behavior through machine learning,” says Rick Borelli, principal and Deloitte Private leader, Risk and Financial Advisory Services, Deloitte & Touche LLP. “We continue to see organizations successfully implement smart

automation, with the focus shifting from solely cost and efficiency, to a focus on talent by creating meaningful work for humans.”

Borelli says the expansion of automation through technology such as bots can help businesses in numerous areas, from client-facing activities all the way through an organization’s front, middle, and back offices. However, he cautions that the tools require disciplined management so that automation serves the business. “It’s critical to implement a smart automation governance model to monitor and manage the risks,” says Borelli.

## Private company CFO: Investing for competitive advantage

According to Deloitte’s CFO Signals Q2 report, respondents rated IT duties as the most likely function they’ll take on in the future. This focus is not surprising when you consider that 30 percent of CFOs have direct oversight over IT duties.<sup>9</sup>

As the responsibilities of finance chiefs continue to expand, so have the expectations placed upon them. Once confined to ensuring their organizations were operating efficiently and maintaining the integrity of their most valuable assets and information, CFOs are now being asked to catalyze behaviors and change across their organization in pursuit of strategic and financial objectives. As strategists, CFOs provide financial leadership in determining strategic business direction, M&A, financing and capital markets, and longer-term strategies vital to the future performance of the company.<sup>10</sup>

Here are a few ways CFOs can rise to the challenge and help their companies convert technology investments into competitive advantage:

- Invest in workforce analytics technologies that require people to take action on findings.
- Relentlessly review cloud integration, security, and customization when investing in IT infrastructure.
- Recognize that cognitive technologies involve far more than automating work, and maintain an open mind about investments that can ultimately transform the business.





# Sharecare: Consumer-driven tech for a lifetime of health

When serial technology entrepreneur Jeff Arnold thinks about the challenge of staying healthy, he starts with a handheld solution. “We believe the smartphone stands to be the greatest single healing device of our time,” Arnold says. Through his latest venture, Sharecare, Arnold aims to offer consumers personalized solutions for their health and wellness, while keeping their information safe and secure.

Sharecare helps users assess the evolving story of their personal health, beginning with the “RealAge” assessment, a scientifically based questionnaire that analyzes factors such as eating, exercise, and sleep habits, along with family health history, behaviors, and existing conditions to estimate the “true age of the body you’re living in.” The Sharecare app then presents the user with personalized health recommendations and daily steps they can take to improve their health over time and lower their RealAge. People who join Sharecare through a sponsoring organization—such as their employer or insurance plan—also can use the platform for clinically supervised programs for weight control, diabetes care, and therapies that aim to reverse the progression of heart disease.

“We are committed to building an experience that is personalized, preventive, private, predictive, and participatory,” says Arnold, the company’s chairman, cofounder and CEO.

Arnold has been at the forefront of consumer-driven health since founding the WebMD medical portal in 1998. In today’s increasingly mobile, on-demand environment, Arnold says Sharecare is making use of emerging technologies such as virtual reality (VR) and machine learning to provide consumers with the programs and interventions they need in real time.

For instance, Arnold expects to see increased adoption of VR in health care as a tool for consumer engagement and education. The technology is already changing the way people understand their bodies, he says. In 2015, Sharecare acquired a virtual reality firm that’s evolved into Sharecare VR. “Whether you’re trying to understand the latest stent procedure as an aspiring cardiothoracic surgeon, or a marketer educating consumers on a medication’s mechanism of action, VR is an exceptional tool,” Arnold says.

We are committed to building an experience that is personalized, preventive, private, predictive, and participatory.

Jeff Arnold  
Chairman, cofounder and CEO, Sharecare

Arnold is also bullish on voice technology, particularly as virtual assistants become standard equipment in people’s homes. “If you can unlock the power of a person’s voice—in particular, by analyzing their fractal patterns—you can provide people with real-time feedback on factors directly impacting their health and wellness such as stress, mindset, and relationships,” Arnold says. “As with our own voice analysis technology, we see tremendous potential for this informing and empowering people to improve their health without disrupting their daily routines, which in our always-on world is critical to achieving scale and engagement.”

Another way Sharecare has been able to bring such innovations into health care is by recruiting talent who are “fluent” in both technology and media, and seeking inspiration from industries that have adopted consumer-driven disruption principles, such as hospitality, banking, and transportation. “For us, it’s not as much about reskilling, but bringing together experts in the clinical and medical field with some of the top minds in human-centered product development, design, and engineering,” Arnold says.

Arnold also says he expects to see cryptocurrency play an increasing role in the consumer-driven health and wellness environment. In this year’s survey, 29 percent of respondents say they plan to use blockchain technology to exchange digital assets, bypassing banks or payment processors. “Think of how we can reward or incentivize healthy behavior,” Arnold says. “From our perspective, the development of a ‘wellness currency’ has the potential to change the game for employers and health plans that aim to move people toward preventive measures to maintain good health.”

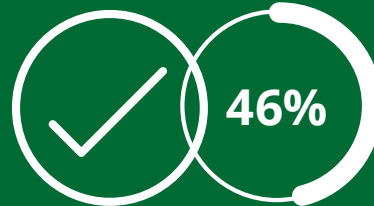
“Information security  
is the top challenge to  
using cloud-based services.”

60%



51%

“Managing  
data  
privacy”



46%

“Ensuring  
data  
integrity”



### Cloud, IoT

Converting investments in emerging technologies into long-term growth is another key item on executives' agenda. Back-office investments such as cloud innovation and cloud integration continue to be areas that respondents predict will have significant impact on their companies in the coming months and years. The respondents list cloud applications as the second most influential technology affecting their workforce and the third most influential when it comes to their customers.


As private companies extend more functions into the cloud, they continue to grapple with the challenges involved with **extending their digital reach.**

Information security is now the top challenge the executives cite in using cloud-based services, garnering 60 percent of the responses, up from 45 percent a year ago. Managing data privacy (51 percent) and ensuring data integrity (46 percent) also rank highly.

Finally, the Internet of Things (IoT) makes one out of every five executive's list of tech-related trends expected to have a significant impact on their business over the next 12 months. More of the respondents see IoT technologies impacting their customers (40 percent) than their employees (36 percent).



## Overlooking IT oversight



It's little surprise that business lines are getting more heavily involved in IT decisions,

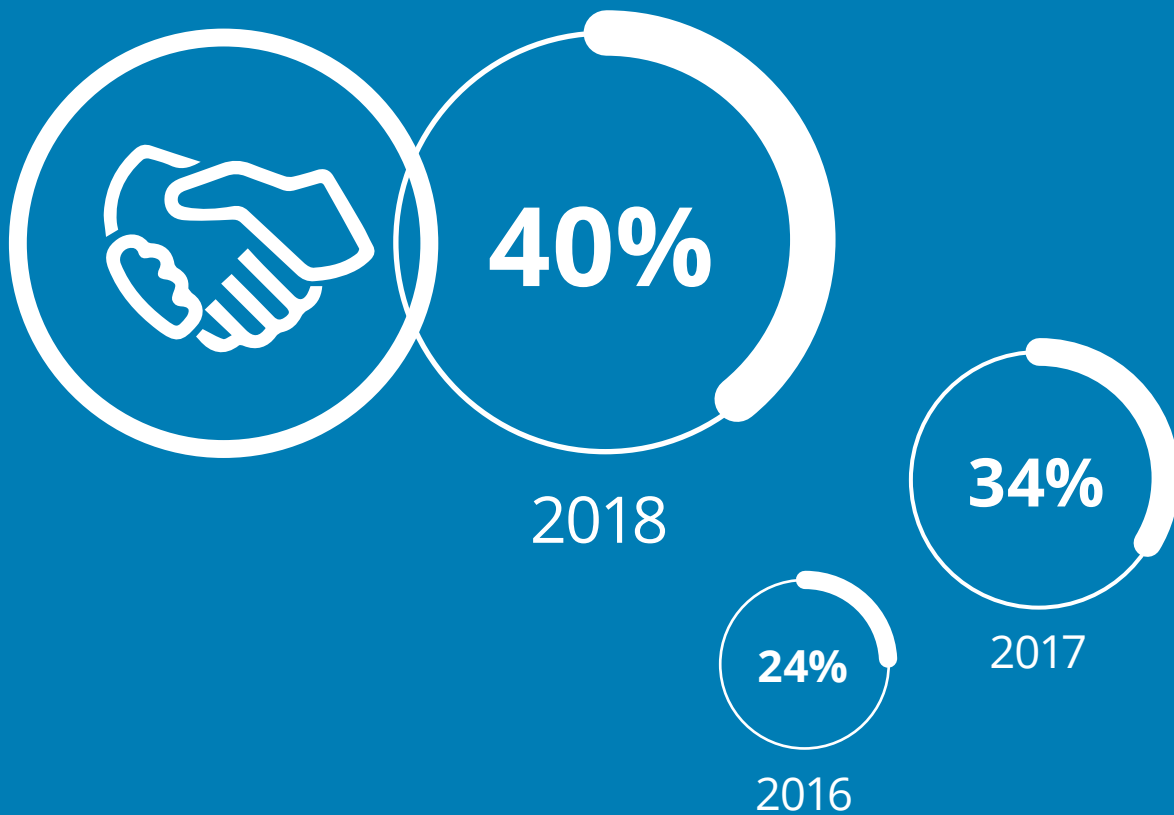
given how pervasive technology use and deployment is at private companies. In our survey, collaboration between the business and IT leaders has noticeably increased in each of the past two years as CTOs, CIOs, and other IT department leaders give up sole proprietorship over the IT agenda.

For some companies, this unprecedented coordination is generating gains in surprising ways.

Jeff Arnold, the chairman, cofounder and CEO of Sharecare, a digital platform for personal health and wellness, says he is encouraged by the trend and its effect not only on business but also well-being.

"At our enterprise clients' organizations—large employers and health plans—we certainly have seen a shift that's bringing together decision-makers in areas from innovation and technology to benefits and HR to business continuity," Arnold says. "The C-suite often comes to the table as well. Ensuring a healthy, happy workforce is a boardroom priority now more than ever."

“Our business and IT leaders work together on adoption of new and emerging tech.”



“We certainly have seen a shift that’s bringing together decision-makers in areas from innovation and technology to benefits and HR to business continuity.”

Jeff Arnold—Chairman, cofounder and CEO, Sharecare



### Lack of formal IT governance

Despite this increased collaboration, though, a large swath of private companies—a third of the respondents, to be exact—say they have little to no formal strategy or processes in place to oversee the risks and opportunities attached to emerging technologies. Asked what is holding back their IT governance, the executives cite issues such as lack of resources to build and develop such protocols, the cost, and a lack of understanding of the importance of IT governance within the C-suite, among other factors.

This lack of formal oversight is problematic for many reasons. For one, it is critical that the board has a fundamental understanding

of IT strategy given how technology is reshaping just about every facet of a company's business. A lack thereof can leave promising opportunities untapped over time, and it can contribute to lack of organizational efficiency. There also are plenty of issues to discuss as new technologies take hold, particularly as artificial intelligence and machine learning tools become more entrenched in day-to-day business and customer interactions.

“Traditional IT governance structures and processes can be bureaucratic and cumbersome, which can lead to project delays and extra cost,” says Khalid Kark, research director, US CIO program, Deloitte

Consulting LLP. “CIOs are now expected to develop IT governance processes that are agile, collaborative, and innovative. IT governance cannot just be about managing the risk: good IT governance can facilitate innovation and uncover new business opportunities.”

In addition, private company leaders need formal strategic plans to address and respond to a growing array of cyber threats. “The unexpected can occur at any time, so organizations should formalize their response and have a rigorous plan to limit lost time, money, and customers,” says Maureen Bujno, managing director, Center for Board Effectiveness, Deloitte LLP.

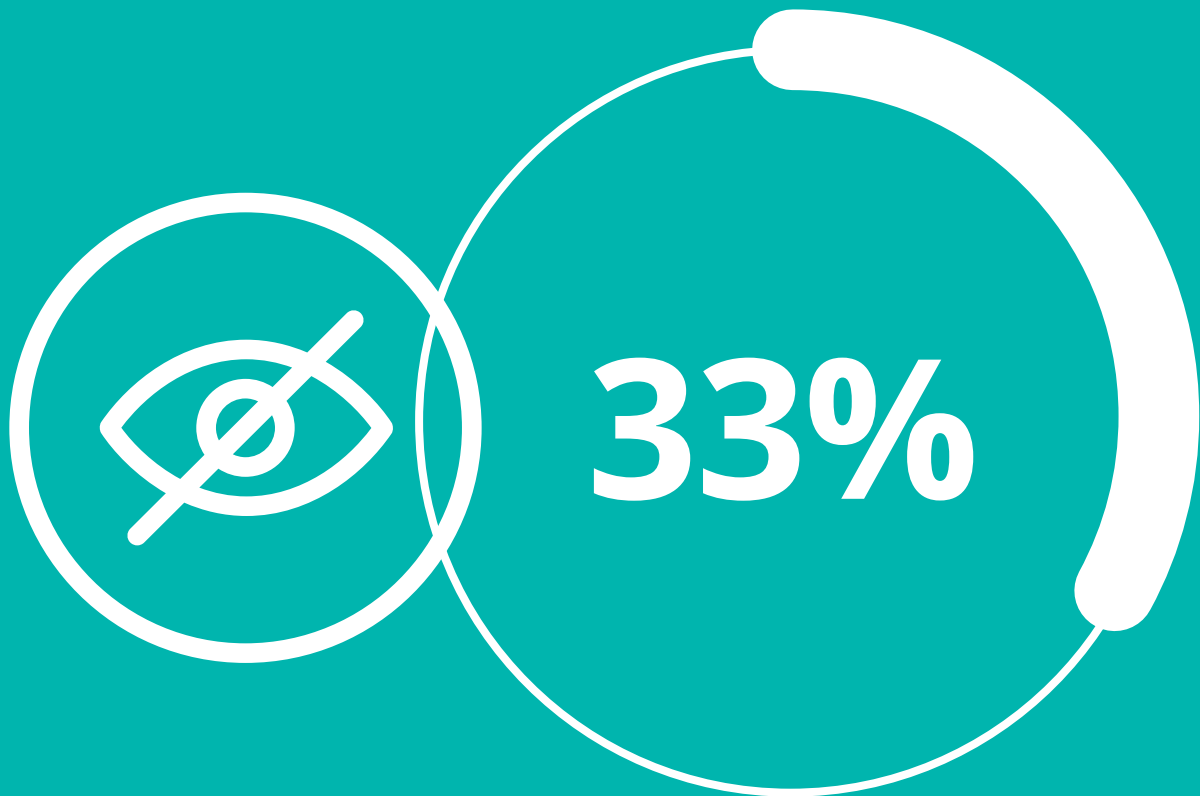
## Private company CTO: Addressing IT governance gaps

Private companies need to look across the organization chart—board members, IT staff, and leaders outside of IT—as they assess their approach to information security. Another trend is addressing these topics in plain language so discrete functions know how cyber issues are affecting their department, whether the issues arise in the supply chain, finance function, or sales channels.<sup>15</sup>

Here are a few ways a CTO can address governance gaps:

- Create a resiliency plan that includes the technical elements of incident response such as logs to document and analyze the response to each attack, and provide proactive communications to stakeholders in the event of an attack.<sup>16</sup>
- Enhance IT governance processes by setting up plans for cross-functional coordination well in advance of a potential threat.
- Consider a zero-trust model which creates safeguards by requiring authentication and validation for access at every stage of a business process rather than assigning access to entire systems based on a perceived degree of trust.<sup>17</sup>

One-third have little to no formal strategy or processes in place to oversee the risks and opportunities attached to emerging technologies.



What is holding back your IT governance?



lack of resources to build and develop

cost

C-suite doesn't understand importance



#### In the crosshairs

Private company leaders might have once assumed that cyber thieves would focus on larger public companies. Those days are now over. Between 2011 and 2015, for instance, the percentage of spear-phishing campaigns, where hackers impersonate legitimate brands to gain victims' trust, grew dramatically among small and medium-sized businesses. By 2015, these attacks represented 65 percent of all corporate attacks.<sup>11</sup>



## Leaders at private companies are clearly concerned about gaps in IT management oversight and governance creating new vulnerabilities.

Just over half of respondents (52 percent) in this year's survey list cybersecurity risk and governance as top issues of relevance for the board of directors and the C-suite. Meanwhile, 50 percent of respondents rank IT governance processes and principles among the top three areas of concern for their organizations.

Some companies are adopting measures such as phishing tests on their own employees in order to see just how vigilant employees will be when faced with a suspicious email message, dubious document, or unfamiliar attachment. The thinking is that employees might not appreciate the risks unless they're presented with evidence to confirm the potential damage that can be done.<sup>12</sup> Other companies are tying cyber goals to compensation in the wake of high-profile security lapses.<sup>13</sup>

But our survey shows that management oversight of IT-related risks is still lacking, even as leading examples continue to show how effective formal processes and procedures can be in mitigating them. One example is two-factor authentication, which requires two of three recognized factors: something you know (such as a password), something you have (such as a hardware token or cell phone), and something you are (such as your fingerprint).<sup>14</sup>

Organizations should also be addressing how enhanced governance can help neutralize or mitigate IT-related risks, including:

- Provide perspective on changes in IT governance and spell out responsibilities for cost control, risk management, etc.
- Handle employee-introduced risk—this concern has consistently grown over the past three years.
- Manage relationships with partners and vendors reacting to the threat environment.





# Westfield Insurance: Investments in AI to anticipate customer needs

By definition, insurance providers react to unforeseen circumstances. Westfield Insurance wants to shift the narrative by using innovation to anticipate what might go wrong. The Ohio-based business insurer is pursuing this goal through a mix of investments in artificial intelligence (AI), technology incubators, and enhanced governance of its data security procedures.

"Big data and analytics feed everything that is happening with technology in the insurance industry," says Joe Kohmann, Westfield's chief financial officer and treasurer. "Our goal is to anticipate needs and use data to make smart decisions, paying attention to changes in the world around us, and being ready for the future."

Westfield is making those preparations through a combination of external partnerships and internal coordination, Kohmann says. For instance, Westfield has participated in Plug and Play's tech accelerator program, working with AI-based start-ups to improve customer retention, as well as insurance industry-specific concerns such as underwriting accuracy, fraud detection, and claims processing. The company also recently launched an innovation subsidiary called 1848 Ventures—a reference to the firm's nineteenth century origins. The innovation group's objective is developing product offerings beyond conventional property and casualty insurance.

Kohmann says the company is also actively looking at innovation as it pertains to its core business. As an example, Kohmann cites the company's collaboration with IBM Watson to create the Westfield Safety Helper mobile app—a tool that uses AI to research customers' primary risks for losses. "The benefits of using this app are increased customer engagement, and helping customers make small safety improvements that will add up to big savings in the future," he says.

Along with these innovations, the insurance business must also contend with the reality of cyber threats, such as the loss of consumer data, Kohmann says. He points to the role of governance in mitigating such risks.

Big data and analytics feed everything that is happening with technology in the insurance industry.

Joe Kohmann  
CFO and treasurer, Westfield Insurance

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"Information security is achieved by implementing a suitable set of controls including policies, standards, procedures, guidelines, and organizational structures to mitigate internal and external threats," Kohmann says. "Effective security is a team effort involving the participation and support of all employees and other persons authorized to access information systems." Kohmann says the insurance industry offers a clear example of the promise of automation. "Consumers have become accustomed to conducting business at an incredibly fast pace, and selecting insurance is no exception," he says. "Automation allows insurance companies to provide a seamless buying experience and allows users to customize coverage."

Keeping pace with this new reality is an ongoing challenge that will require companies to continue to invest in their teams for the benefit of their customers, Kohmann says.

"As the tasks that can be achieved through automation are identified, capacity and opportunities to reskill our workforce become clear," Kohmann says. "We're viewing these disruptive technologies as opportunities, and customers are going to experience a more efficient, flexible, and transparent process."



## Leading beyond the horizon

# The growth trajectory of privately held companies continues to trend upward.<sup>18</sup>

While managing cybersecurity and information security risk is still the top investment priority, their additional focus on business innovation positions mid-market firms for continued expansion. But these businesses will also have to contend with complex issues affecting business functions, as well as their people.

With business operations viewed as the most likely area for technology-related job disruption in the coming years, survey respondents acknowledge that executives face a tough climb. As automation becomes a decisive component in an increasing number of individual tasks within jobs, companies have to ensure they are identifying higher-value roles—and help their people make the leap to perform in new jobs.

A lot of those responsibilities have yet to be determined, and many of the roles themselves have yet to be created. But it is encouraging that companies understand

the challenges facing talent as a whole, as a majority of respondents see experiential learning and cognitive skills as a critical means to enhance the performance of future generations of workers.

These changes are also likely to emerge at the same time that significant information security risks are likely to dominate executives' agendas. That requires organizations to take a hard look at their current approach to governance, potential changes to protocols, and, at times, their understanding and awareness of ethical obligations toward customer data in a marketplace where transparency and immediacy have become the norm.

Optimism remains high as private company leaders take a collaborative approach to their technology investments. As executives consider investments to help their companies stay competitive in the long term, it's positive to see so many executives stepping up to shoulder the responsibility.

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This report is also available online at [www.deloitte.com/us/mid-market-technology](http://www.deloitte.com/us/mid-market-technology).

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