The cloud grows up

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Introduction

In less than a decade, the cloud has gone from a distant vision to the mainstream of business technology. More and more companies are moving core functions into the cloud, and many now have several years of experience with the opportunities and challenges that accompany this transformation.

Widespread enthusiasm about the cloud's far-reaching impact is strong, with companies continuing to invest in the cloud in order to capitalize on the opportunities it brings—and many already reaping quantifiable benefits as the cloud becomes the primary platform for business.

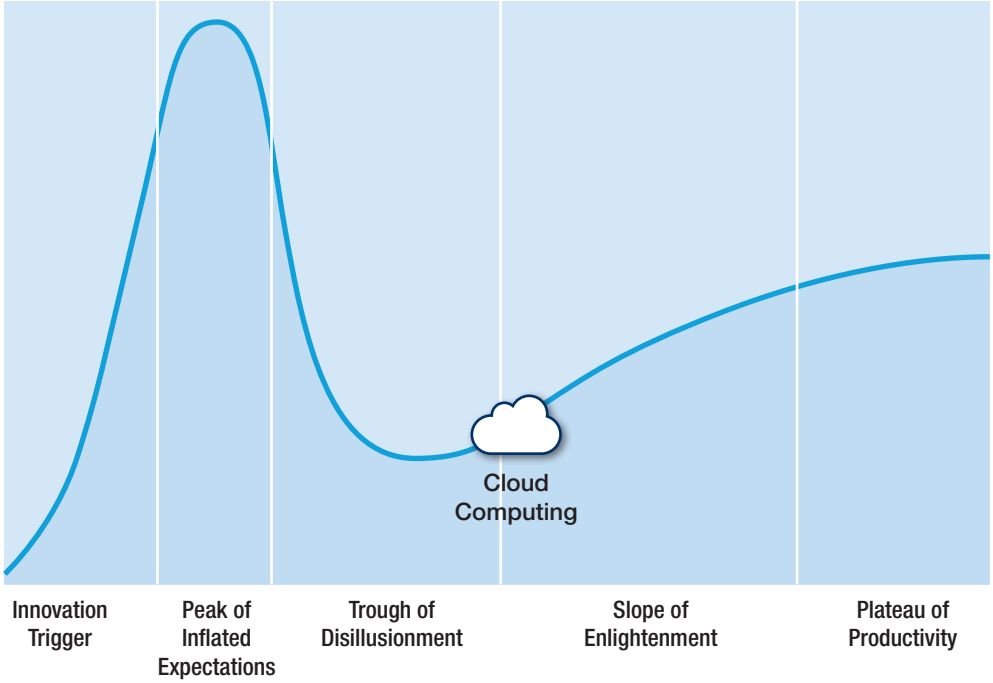
But some things have changed along the way.

In late 2014, Oxford Economics and SAP surveyed 200 senior business and IT executives around the world about their adoption and use of cloud technology. Compared with the same survey fielded in 2012, the results show that companies have become more realistic about both opportunities and challenges along their journey to the cloud.

The early days of inflated expectations have given way to the reality of the hard work of implementation and day-to-day execution needed to realize the big payoffs promised. As the cloud becomes the primary choice for so many business functions and strategies, a certain amount of refinement and fine-tuning is a healthy part of the process.

The cloud is growing up.

Fig. 1: The 2014 Gartner Hype Cycle for Emerging Technologies



Source: Gartner

In fact, the cloud is moving along Gartner's Hype Cycle for Emerging Technologies, which maps the changing attitudes of users as new technologies mature. Unsurprisingly, the cloud has gone from what Gartner calls the "Peak of Inflated Expectations" through its "Trough of Disillusionment." The destination is Gartner's "Plateau of Productivity," and there are strong signs that businesses are making the transition to that next phase of understanding the value of cloud computing.

In practical terms this means that companies today are focused on addressing targeted challenges rather than worrying about general issues. Talk of security as a broad topic, for example, has given way to more specific obstacles such as end-to-end monitoring or proprietary integration interfaces—and with risks now understood to be in particular operational areas, more firms are moving responsibility for the cloud from IT to operations. Meanwhile, expectations for success in the cloud have shifted from an earlier and more general focus on productivity and efficiency to specific targets like innovation in supply chain, talent, collaboration, and analytics.

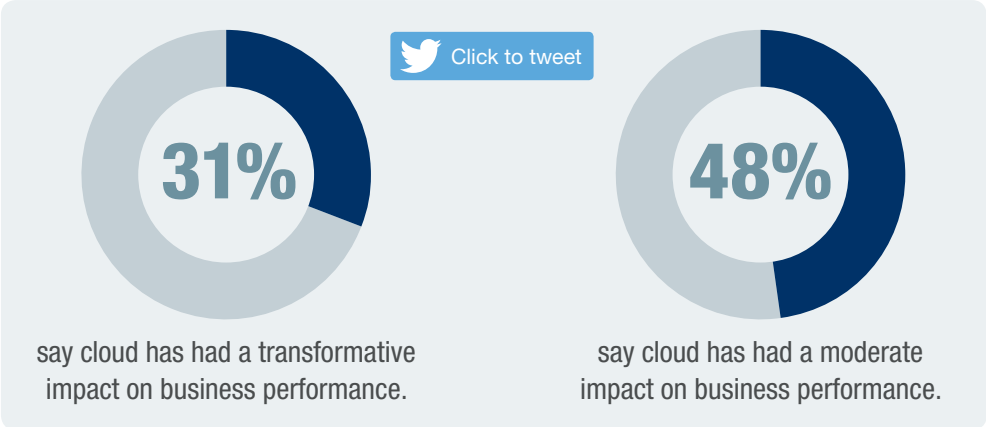
As cloud becomes a reality, once-elusive goals now become tangible. Companies are making sweeping changes to personnel, tools, and processes—and setting their sights on total business transformation, fueled by cloud computing.

Cloud is the new normal

Companies with meaningful experience working in the cloud remain enthusiastic about its potential to re-invent their businesses—and in fact, many say it already has.

Nearly one-third of our survey respondents say the adoption of cloud computing has had a transformative impact on their business performance. Those who cannot find a business case for moving to the cloud, says Don Whittington, CIO of ASR Group, the world's largest refiner of cane sugar, "are not focusing on the business."

In fact, there is a sense that cloud adoption and its transformative impact are inevitable for businesses. Just 1% of our survey respondents say cloud computing is not part of their company's business strategy. And while many companies have already shouldered the start-up costs of migration—over half of survey respondents in 2012 said they planned to make heavy investments in cloud by 2015—plans for continued investment point to ongoing enthusiasm.



Cloud is already used widely across key business functions, with roughly two-thirds of respondents saying that marketing, purchasing, and supply chain are somewhat or mostly cloud-based, and three-quarters saying so of innovation/R&D. And companies expect these functions to be even more embedded in the cloud in three years. "We take a cloud-first stance. Anything that we need to do, we will ask ourselves, 'Can we do this in the cloud?'" says Robert Anderson of British American Tobacco.

Companies expect a lot from their cloud investments, and the impacts of adoption are proving broad-based—and are expected to grow rapidly over the next three years. As Fig. 2 shows, more than half of respondents expect the cloud to have a significant impact on new business models, collaboration among employees, supply chain, talent, and even top-line growth. And the cloud is already driving change across the organization: engagement with employees, customers, and suppliers, and the redistribution of purchasing power among business units are among its leading impacts today, with workforce-related areas expected to see significant change in the next three years.

Decisions to move into the cloud are not in question. In fact, the cloud is becoming a primary platform for business innovation.

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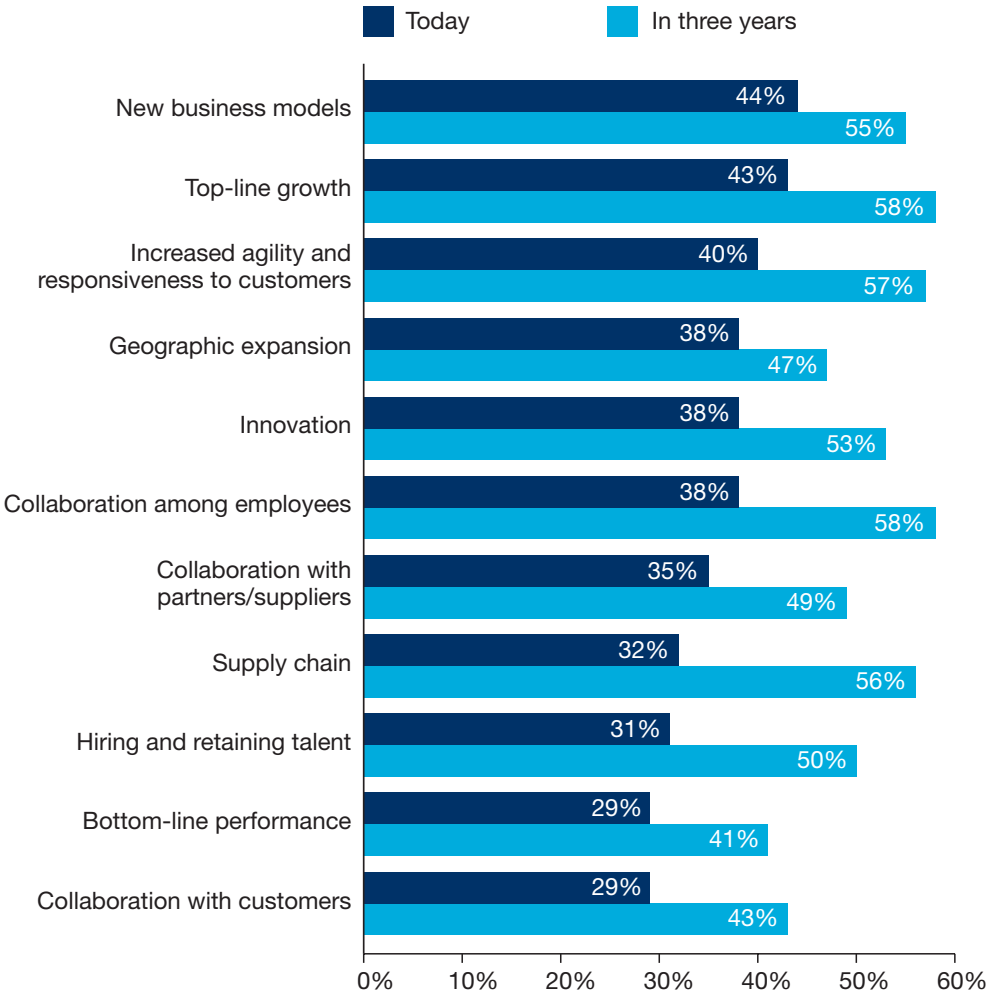
Fig. 2: The impact of cloud on business, today and in three years

To what extent has the adoption of cloud computing had an impact on the following areas of your business? What impact do you expect to see in three years? "Impact" and "Transformative impact" responses



Cloud: The innovation factory

These relatively nuanced, strategic expectations point to a shift in the way executives view the cloud. While early users focused on hopes for extreme cost savings and efficiency gains, today's users have enough experience to temper those expectations while seeing a broader range of possible benefits. Our data clearly indicate that decisions to move into the cloud are not in question, and that in fact cloud is becoming a primary platform for business innovation as organizations are freed from the constraints of building and maintaining infrastructure and can focus instead on advancing in their core business.

"Internal processes and the ways that you deliver traditional systems need to evolve in order to deliver services through cloud provision."

Robert Anderson, BAT

Reality-based strategy at British American Tobacco

London-based multinational British American Tobacco (BAT) takes a measured, step-by-step approach to cloud adoption. This steady move to cloud is a strategy that works for BAT, one of the largest tobacco companies in the world, with operations in over 180 countries. The nature of BAT's business requires it to consider a wide range of risks. As a consequence, the company must give careful consideration to the location, term, and conditions under which its data is managed.

"We have spent a huge amount of time with our legal function and external advisors to work out an acceptable framework for the adoption of cloud services," says Robert Anderson, Chief Architect for IT at BAT. The firm knows under which circumstances it can use cloud—and does so whenever possible. "We anticipate using the cloud much more than we are today."

To date, the company's move to the cloud has been built on strategic moves into selected services. BAT has steadily expanded the range of functions in the cloud, and is preparing for greater levels of adoption down the road through strategic hiring and retooling.

Efforts include a commercial academy for IT employees to improve their understanding of the cloud service landscape, and broadening the role of third-party providers to include service management. "We're a tobacco company, not an IT company," says Mr. Anderson. "Why would I not get somebody who runs cloud-based services to do that for me?"

Though BAT takes extra precautions with data storage as it moves to the cloud, Mr. Anderson says that ultimately, the move to cloud services seems like a given.

Cloud as a change agent

Cloud users have moved past Gartner's Peak of Inflated Expectations into the practical application of the technology.

In 2012, companies were enthusiastic—perhaps overly so—about the benefits they expected from the cloud. Over two-thirds of respondents then expected the cloud to significantly improve their company's productivity, speed and efficiency, and innovation. Today's respondents are more reserved about these goals, with slightly less than half expecting significant improvement in these areas. But cloud's transformative potential is understood as the new normal in crucial ways.

Companies today are less likely than they were in 2012 to say cloud is only a means of reducing costs and increasing efficiency, favoring more growth-oriented benefits instead.

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Consider the transformation that has already taken place around business collaboration, in areas like real-time communication and shared data. In 2012, only about one-third of companies surveyed thought cloud would have an impact on collaboration; today, over half think this will become a reality in the next three years. For example, employees can communicate in real time to generate new product ideas, or customer-service agents can post answers to client questions instantaneously. In fact, 38% say cloud computing has had an impact on collaboration among employees today, and 58% expect it will within three years; 29% say cloud computing has had an impact on collaboration with customers today, and 43% expect it will within three years.

Moving to the cloud requires changes to process and culture. "Internal processes and the ways that you deliver traditional systems need to evolve in order to deliver services through cloud provision," says Mr. Anderson of BAT. Changing these processes not only requires additional investment, but also rethinking areas like talent management and culture. In fact, 50% of respondents say they expect cloud to have a transformative impact on hiring and retaining talent in the next three years.

"One of the biggest challenges we face with changes to traditional IT is organizational culture," says Jeroen Scheer, a senior executive with Dutch energy company Alliander. The problem is particularly challenging for organizations in regulated industries that are part of a critical infrastructure, like energy. Such organizations are mostly reluctant to adopt cloud-based solutions. Any disruptions to the established norm (mostly by regulators), says Mr. Scheer, "require a lot of conversation and examples of how others are doing things. We are trying to find skilled people within business and IT that are most responsive to these ideas."

But while companies today are quicker to acknowledge roadblocks, they are also less likely than they were in 2012 to say cloud is only a means of reducing costs and increasing efficiency, favoring more growth-oriented benefits instead. This shift in focus—from general business success to creative solutions for more complex goals—points to an increasingly strategic perspective on the value of cloud computing.

Case in point: Although Mr. Anderson at BAT acknowledges lower costs due to standardization and scale as primary benefits, he also points to the opportunity to speed up its procurement process. "Under our traditional model, it can take several weeks to get to the same point—to go through a procurement cycle, install equipment, configure that equipment, and get it up and running," says Mr. Anderson.

A key benefit of the cloud is "the speed at which you can set things up and collapse things down." This kind of flexibility makes it less risky for companies to be more innovative and agile.

Robert Anderson, BAT

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A key benefit of the cloud is "the speed at which you can set things up and collapse things down." This flexibility reduces the risk of innovation for companies, while increasing their agility to adapt to market conditions.

As the cloud offers the freedom to experiment with new solutions, an increasing number of companies are realizing its potential to drive change across, and beyond, the enterprise. Leaders are demonstrating the value of strategic change at scale, even as they focus on operational details to achieve success. In fact, companies today are more likely to give responsibility for cloud risk-management to operations (18% today vs. 6% in 2012)—reflecting the transition to operational concerns. The shift in mindset includes IT. Mr. Whittington at ASR Group has said that IT no longer focuses on aligning with the business because it is part of the business. IT increasingly can be considered as another line of business that drives revenue.

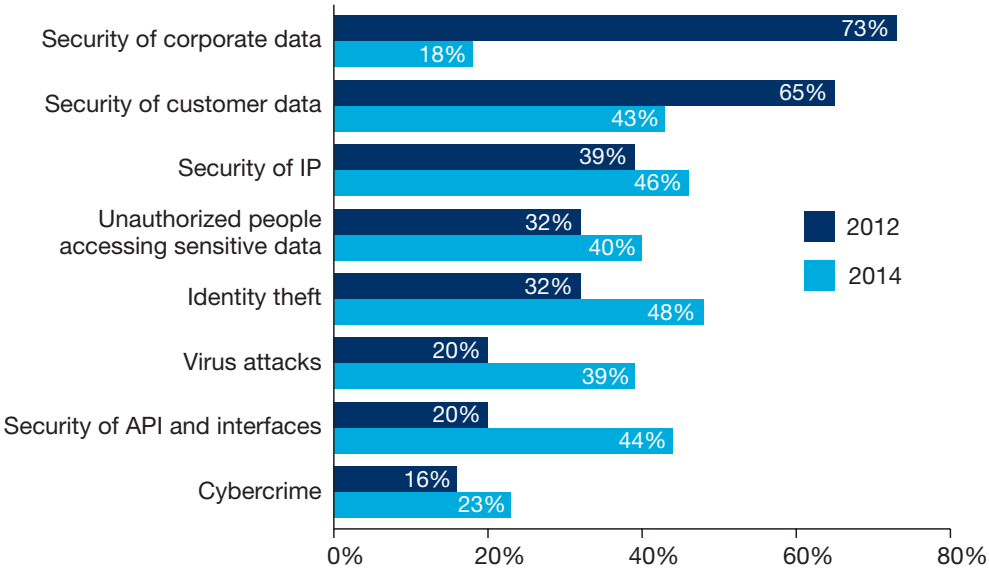
Cloud as a mindset

The shift in focus to more strategic areas points to growing experience with and confidence in the cloud. Instead of taking the broad-based approach to cloud favored in earlier days, companies are now keyed in to the nuts and bolts of implementation.

In particular, businesses have sharpened their focus on risk and security, adopting a more nuanced view of challenges and threats over the past two years. General concerns about ensuring consistent security—rated far more highly than other challenges in 2012—have given way to more specific issues such as sprawl and redundancy of cloud services, and the role of non-IT administrators. As Fig. 3 shows, concerns today are distributed more evenly across areas like security of customer data, IP, and unauthorized people accessing sensitive data, rather than the catchall bogeyman of corporate data security.

Fig. 3: Top concerns for cloud security, 2012 and 2014

Please rank your top three concerns in the area of cloud security?



"Security was a bigger issue four years ago."

Don Whittington, ASR Group

While our 2012 survey highlighted security as the top challenge, some executives were already sensing the changes ahead. Johnathan Evarts, COO and CFO of mobile content cloud provider Mediafly, told us in 2013 that concerns about security in the cloud were steadily dissipating amid growing awareness of how much cyber-security expertise cloud providers have in-house. According to Evarts, enterprises are increasingly aware that "they're no less secure than they are with an on-premise solution." Security remains a critical item on the risk-management agenda, but must be balanced against the need to keep up with changing technology and the drive for innovation.

For ASR Group, security is paramount, but "it was a bigger issue four years ago," says Mr. Whittington. Today, the company works closely with vendors to ensure consistent security, freeing up time to focus on growing the business. "[Our providers] have a group of professionals with a broader range of experience than we would be able to bring as a single environment. We work closely with them. We know the security that they have put in place."

Cloud drives growth at ASR Group

Sugar producer and distributor ASR Group has grown steadily through acquisition over the past 20 years. The company's expansion requires it to quickly scale IT infrastructure. Cloud is its preferred vehicle for doing so.

"It's a very powerful model in which to operate," says Don Whittington, CIO of the Florida-based company. "You can do it incrementally, cost-effectively, and you can mitigate a lot of the technical and business risks associated with it."

ASR Group already has a number of key functions—including ERP, sales, operational planning, and HR—in the cloud, and has realized benefits in areas ranging from agriculture and sustainability to mergers and acquisitions.

This move to cloud services requires changes across the organization, and so education and training have risen in priority. "As much as we might wish otherwise, it is a transformation more than a leap," says Mr. Whittington. "But it is one that lets us eliminate rote work—such as matching orders and balancing books—and enable employees to become more analytical. They can use their time to look for ways to better the business."

More companies today say they are participating in networks set up by technology providers (54%) or by partners (56%).

Experience is showing users that challenges come in different packages—and new kinds of expertise are needed to meet them, as cloud-based services demand that the user have strong commercial skills, integration capabilities, and service-management experience. "Finding the people with the right skills to understand and deploy these technologies is a challenge," says Mr. Scheer of Alliander. "We want people with a certain mindset—that have analytical curiosity, an entrepreneurial mindset, and a deep knowledge of the technology to know what's usable, what brings value, and what should be passed over."

The focus on collaboration, operations, and risk is changing, as well. While nearly two-thirds of respondents in 2012 said they were building their own cloud-based business networks, this number drops to 38% today. More companies today say they are participating in networks set up by technology providers (54%) or by partners (56%). Companies today are also more likely than they were in 2012 to say they only work with cloud-based service providers with built-in connectivity to other cloud-based services (36% today vs. 25% in 2012).

Because companies are now more confident in the cloud—not only as a technology, but as a mindset—they have the opportunity to take a more strategic approach to cloud implementation. Recognizing the real obstacles and identifying strategies for addressing them head-on, and in turn realizing net-new value along the way, is part of the journey that will drive them along the curve to the Plateau of Productivity.

Cloud pays off

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Jeroen Scheer, Alliander

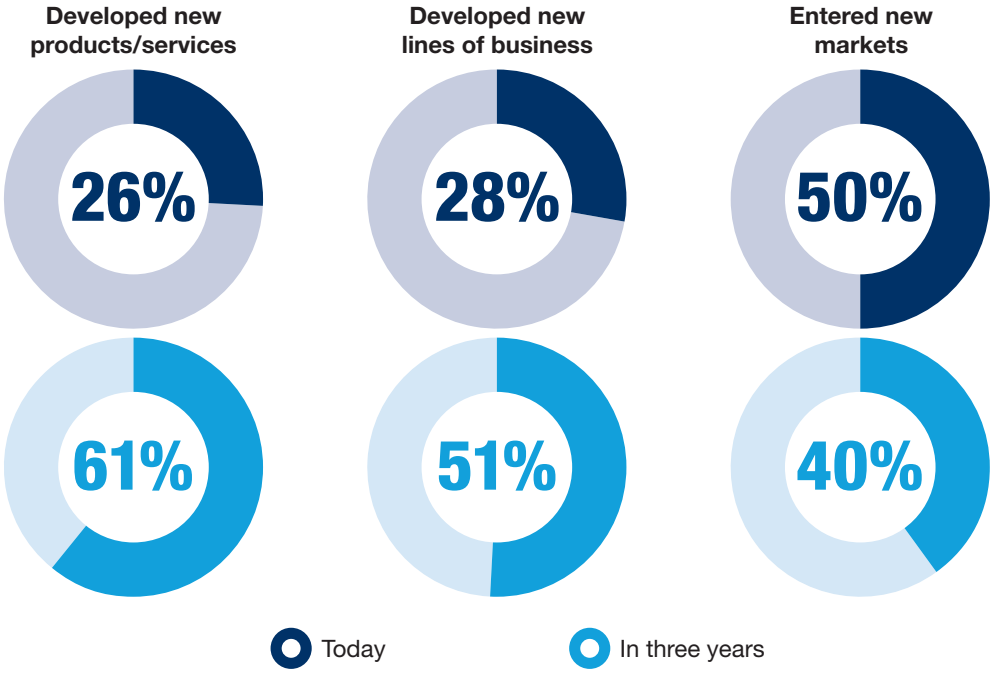
More than two-thirds (69%) of businesses expect to make moderate-to-heavy cloud investments over the next three years, and they also plan to increase their migration of core business functions to the cloud. In fact, within three years, nearly all respondents say that innovation/R&D and supply chain will be "somewhat or mostly" cloud-based. Real-time use of big data is also growing in strategic importance—59% say they use the cloud to better manage and analyze data, anytime from anywhere, a 10-percentage-point increase over 2012.

The payoff from these investments is expected to yield strategic gold. Within three years, 61% of respondents plan to have developed new products and services via the cloud, and 51% plan to have developed new lines of business.

Early leaders in cloud adoption are well on their way to realizing the transformational potential that cloud delivers. Vijay Sethi, CIO of India-based Hero Motocorp, the world's largest manufacturer of two-wheeled vehicles, told us in 2013 about the company's use of a "community cloud" that brings together Hero's broad customer base and service organization to transform their offerings. The company regularly organizes "service camps"—portable showrooms and maintenance facilities where bikers can engage as well as receive discounts on tune-ups and repairs—in easily accessible parks near large population centers. By bringing service operations out of its dealerships and into the everyday world, Hero increases its exposure and reaches its vast customer base in non-traditional ways—none of which would be possible if its service employees were tied down to traditional venues.

Fig. 4: Using the cloud for key strategic goals, today and in three years

Has your company developed new services and lines of business, or tapped new markets via the cloud? Will it have done so within the next three years?



Expansion into new markets is another key aim for companies. Groupe Danone, the French food multinational, told us that cloud plays a critical role in enabling rapid refresh cycles and the ability to support localized versions of its brand strategy, as well as its ability to reach a broader market through mobile. British American Tobacco, too, is using the cloud to revamp go-to-market strategies. According to Mr. Anderson, the company's distribution channels and transaction capabilities offer a significant opportunity for cloud-based services further develop these markets.

Experienced executives are increasingly confident of the ultimate payoff of this outcome-oriented approach to the cloud. "Imitation is the highest form of flattery," says Mr. Whittington of ASR Group. "The best measure of our success has been the fact that we keep doing more."

Who took the survey?

In late 2014, Oxford Economics surveyed 200 executives from around the world. Respondents work for companies headquartered in 11 countries, including the US (20%), Brazil (15%), Germany (10%), and China (8%). Respondents include C-level executives, IT and operations executives, and business-unit heads from four industries: banking/capital markets (25%), retail (28%), consumer products (25%), and telecommunications (22%).

Fig. 5: Respondents by revenue

What is your firm's annual revenue in US$ for the most recently completed fiscal year?

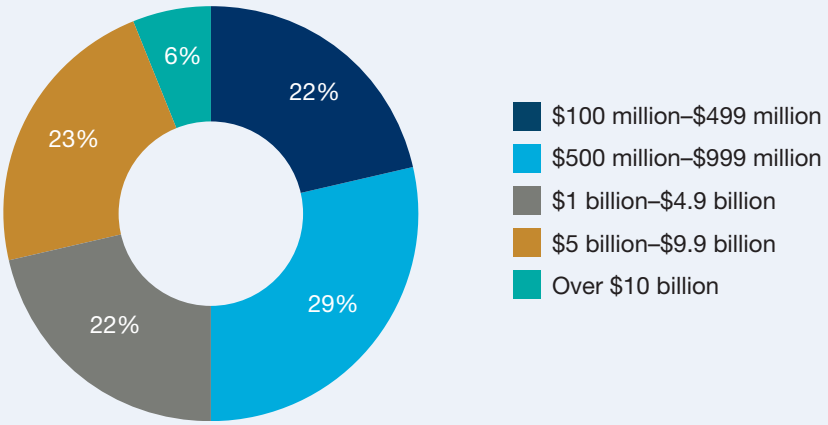
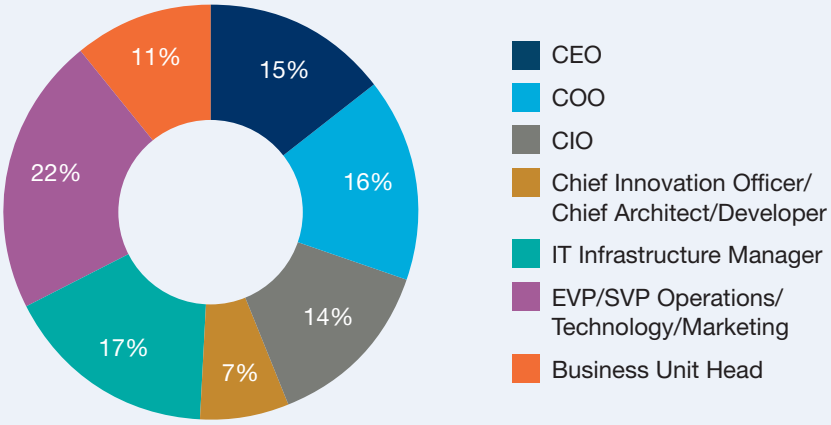


Fig. 6: Respondents by title

What is your job title?



Interviews were conducted with executives from ASR Group, British American Tobacco, and Alliander, all of whom have deep knowledge of their company's cloud computing strategies. These interviews provided critical qualitative insight into the survey findings.

Conclusion

It is still early in the cloud journey for most companies, and although the business transformation challenges can be significant, there is significant enthusiasm for the cloud's transformative potential.

What does the future hold? Transformative change—to business models, processes, collaboration, and outcomes. Cloud is the new normal, and as companies work through the realities of adoption, the sharpened focus on operational details should accelerate the transition of cloud as the transformative force that will help organizations re-imagine their businesses, develop new and innovative offerings, open up opportunities to drive customer success and loyalty, and, ultimately, transform their business.

How is the cloud transforming your business? Share your stories on Twitter using #cloudgrowsup.

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