451 Research | Advisory

The Impact of Cloud Applications on the Role of IT

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About this paper

A Black & White paper is a study based on primary research survey data which assesses the market dynamics of a key enterprise technology segment through the lens of the 'on the ground' experience and opinions of real practitioners – what they are doing, and why they are doing it.

About 451 Research

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Introduction

Technology is radically changing the way people work, as more and more business processes are transformed by innovative delivery models. To keep up with evolving requirements, IT organizations must alter their approach for introducing and securing new technologies, as well as training and empowering their employees. We are entering a period when hybrid IT – a mix of legacy systems with cloud services – and all-cloud models are becoming widespread.

IT organizations and IT customers gain significant benefits by using cloud applications. In particular, Microsoft Office 365 and Google Apps allow organizations to deploy core collaboration functions as a service, eliminating the need to purchase, deploy and manage hardware; upgrade software; manage storage quotas; configure and test disaster-recovery functionality; and address planned and unplanned maintenance issues. Across the industry, usage of this type of software-as-a-service (SaaS) model has been seen to improve results, eliminate mundane tasks, and strengthen the connection between IT and business users.

This study is intended to explore and measure specific benefits derived from the use of cloud applications, both for IT and for the business.

METHODOLOGY

The survey data used in this report was collected in March 2016 by 451 Research – commissioned by BetterCloud – using a US-based web survey to query 269 organizations across a wide range of verticals about how cloud application adoption is changing the role of IT within enterprises. The survey sample includes respondents (IT decision-makers or influencers) from both midsized (500-1,000 employees) and large enterprises (more than 1,000 employees), with job titles ranging from manager to C-level executive.

All surveyed organizations are using cloud office solutions, with 71% of respondents stating that Microsoft is their primary vendor, and 29% saying Google is their main provider. The median of cloud applications in use is 31, and 64% of respondents state that they have most or all of their IT workloads and processes delivered via cloud services.
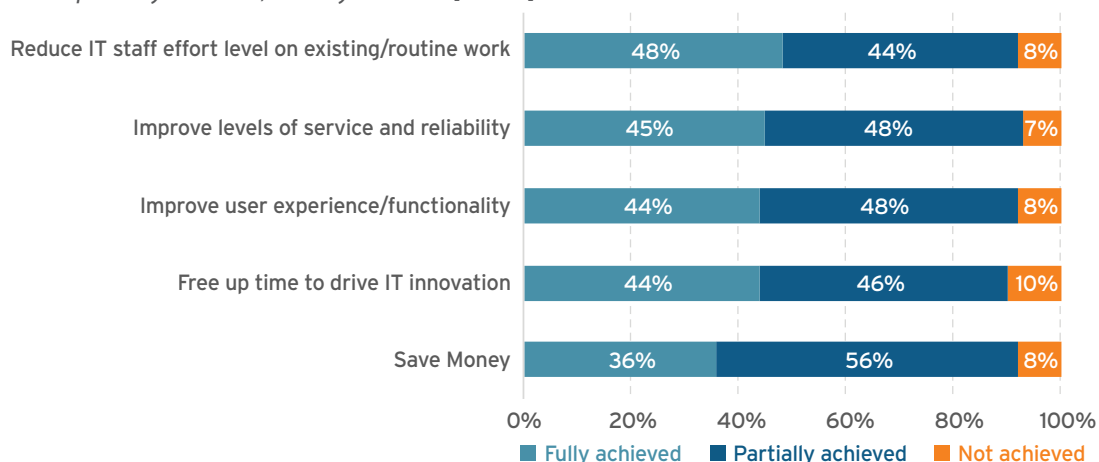
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Benefits of Using Cloud Applications

SaaS typically offloads tasks, improves agility, adds new functionality and reduces costs – and the survey results show that most organizations do achieve these benefits. We asked respondents to rate a variety of goals as fully achieved, partially achieved or not achieved. For the purposes of this paper, we consider the terms 'SaaS' and 'cloud applications' as equivalent.

Across the board, at least 90% of survey respondents reported that they either fully or partially achieved each of the described goals through their use of cloud applications. Of those, 48% of respondents said they fully achieved their goal of reducing IT effort on routine work, 45% fully achieved an improvement in service levels and reliability, 44% fully achieved goals in improving user experience and functionality, and 44% fully achieved their goal of freeing up time to drive IT innovation. Respondents described some challenges with the goal of saving money through the use of cloud applications, with only 36% reporting full achievement, although another 56% did report partial achievement. Overall, a large majority of users are seeing significant benefits from their shift to cloud-delivered applications.

Figure 1: Overall Benefits of Cloud Applications

Q: Rate the achievement of the benefits below in connection with your cloud applications on a scale of 1 to 3: 1 – not achieved; 2 – partially achieved; 3 – fully achieved [n=269]

| Benefit	Fully achieved	Partially achieved	Not achieved
Reduce IT staff effort level on existing/routine work	48%	44%	8%
Improve levels of service and reliability	45%	48%	7%
Improve user experience/functionality	44%	48%	8%
Free up time to drive IT innovation	44%	46%	10%
Save Money	36%	56%	8%

Usage of cloud applications has a significant impact on the work experience of both IT administrative staff and business-unit technology consumers. Survey respondents say that the most significant benefits realized by IT administrators include spending less time on mundane tasks like maintenance, configuration upgrades and backup, and an increase in the ability to work remotely – each indicated by more than half of the respondents. Reducing effort on mundane tasks makes administrators happier and more engaged, and ultimately makes it easier for organizations to hire strong candidates. It also frees them up to work on more innovative and value-creating tasks such as increased focus on end-user requirements, customized features and interfaces, or building new applications that can allow the business to address new markets or customer segments. Innovative efforts such as these can enable IT to drive meaningful impact to the business, rather than simply maintaining the status quo. Combined with the flexibility that comes with an improved ability to work remotely, cloud application usage can contribute to a more effective workforce overall.

Less widely reported – but still significant – benefits include closer engagement and participation regarding business strategy and planning for the future, increased work satisfaction and better relationships with colleagues. In general, these results point to cloud applications as powerful agents for increasing the connection between IT and the business – turning IT from a barrier to change into a partner in change. At the same time, this closer connection has the potential to create a better work experience for IT staff, especially when combined with the reduction of mundane tasks and the increased focus on innovation.

Figure 2: Major Benefits of Cloud Applications to IT Admins

*Q: What are the major benefits to IT administrators from cloud applications? [n=269; select top 3]*
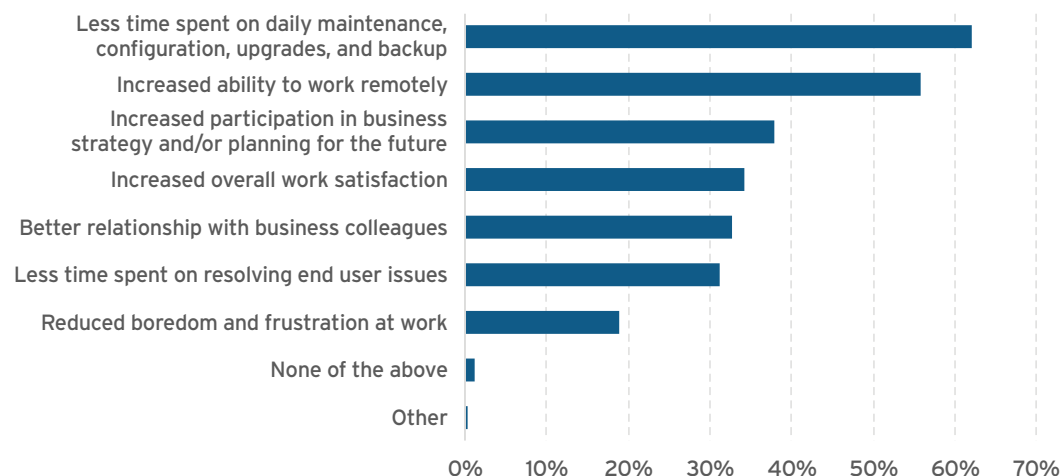
When it comes to end users, respondents point to a combination of improved technology and organizational factors as major benefits. The most prevalent benefits ascribed to cloud applications are the automatic synchronization of data among multiple devices – which is likely to make individuals more productive, especially when working from varied locations – followed by better collaboration with peers, which is likely to make group efforts more effective.

The next most common survey responses revolve around the technology benefits offered by cloud applications, including reduced reliance on email as a tool to share information, better user interfaces compared with legacy applications, better search capabilities and more ability to customize. While you don't necessarily have to move to the cloud to get newer and better software, the fact that most emerging applications tend to be offered via the cloud, either preferentially or exclusively, make it common to choose the cloud when switching to a new product or implementing one for the first time. For organizations that struggle with limited feature sets and capabilities, switching to cloud-based toolsets can give them a better application experience, along with eliminating mundane IT tasks around infrastructure deployment and ongoing management at the same time.

Figure 3: Major Benefits of Cloud Applications to End Users

Q: What are the major benefits to end users from cloud applications? [n=269; select top 3]
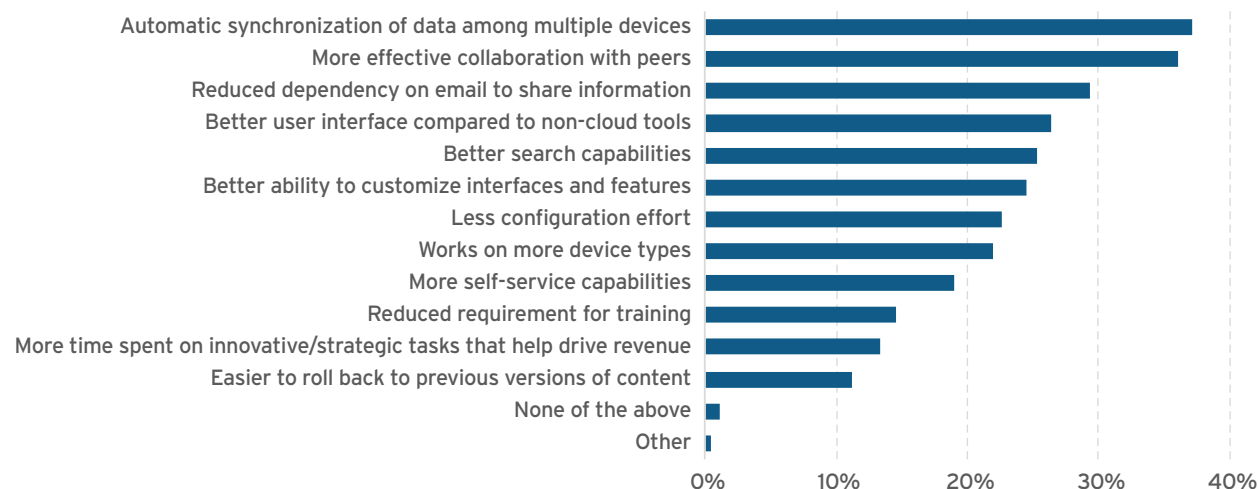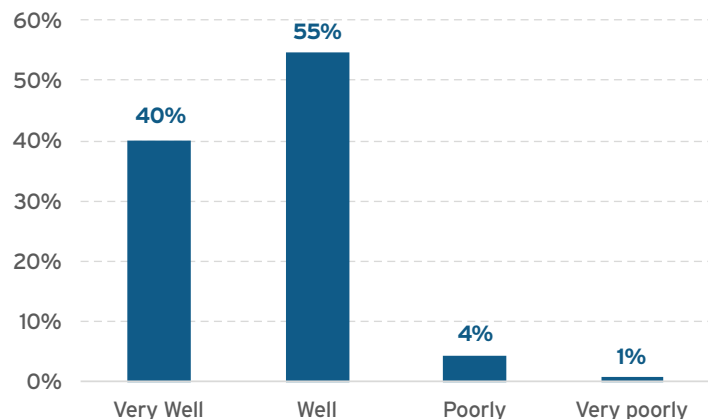

Cloud Office Solutions

In terms of overall effectiveness, we asked respondents to rate how well their cloud office solution meets the needs of their workforce – 95% said that their usage of Microsoft Office 365 and Google Apps fit their workforce needs either well or very well, while just 5% said it fit poorly or very poorly. Cloud-delivered solutions don't guarantee good solution design, but this survey data indicates that the major cloud office solutions are hitting the mark in terms of overall effectiveness and user experience. Survey respondents using Google, while fewer than those using Microsoft, reported slightly higher suitability – 44% of Google users pointed to the solution suiting their workforce very well, compared with 39% for Microsoft Office, and only 1% of Google users pointed to poor suitability, compared with 6% of Microsoft users. Google suitability may be higher due to its offerings being cloud-native – without having to adapt software from on-premises legacy tools, Google may well have created a fresher and more user-friendly experience than Microsoft, which had to transition tools and conventions from a non-cloud world.

Figure 4: Suitability of Cloud Office Solutions

Q: How well does your cloud office solution suit the needs of your workforce today? [n=269]

To understand the benefits achieved from the use of cloud office solutions, we asked respondents to rate the level of effort associated with a variety of IT administrative tasks before they implemented cloud solutions, and how that changed since the cloud solution was adopted.

The most positive impact reported was in storage – specifically in the areas of storage and quota management, as well as data recovery. For both categories of storage management, 54% of respondents reported a reduction in the level of effort associated with those tasks as a result of their use of cloud office solutions, as shown in Figure 5. [Note: File storage and email are the most used elements of cloud office solutions as reported by our survey respondents (78%).]

Figure 5: Reduction in Level of Effort as a Result of Moving to Cloud Office Solutions

Q: Rate the level of effort associated with the following tasks before and after moving to your cloud office solution.
[Rate the below choices on a scale of 1 to 4: 1 – no effort; 2 – minimal effort; 3 – moderate effort; 4 – high effort; n=269]
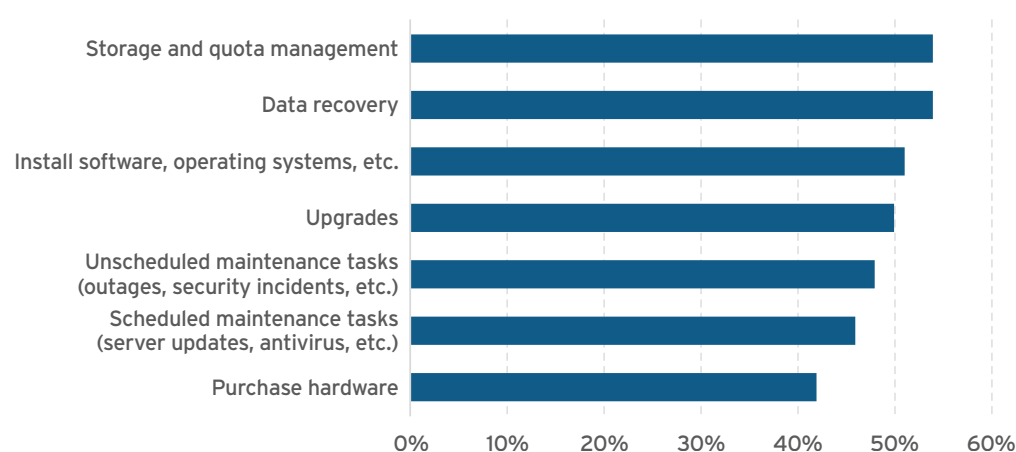
Note: The chart above shows the percentage of respondents that reported a reduction in the level of effort associated with the respective tasks.

In all categories, the average level of effort after moving to the cloud was reported as minimal, and in most cases, the use of cloud office solutions represents a reduction in effort, as shown in Figure 6.

Figure 6: Average Level of Effort Before and After Moving to Cloud Office Solutions

Q: Rate the level of effort associated with the following tasks before and after moving to your cloud office solution.
[Rate the below choices on a scale of 1 to 4: 1 – no effort; 2 – minimal effort; 3 – moderate effort; 4 – high effort; n=269]

| Task	Average Level of Effort Before Cloud	Average Level of Effort After Cloud
Storage and quota management	Moderate	Minimal
Data recovery	Minimal	Minimal
Install software, operating systems, etc.	Minimal	Minimal
Upgrades	Moderate	Minimal
Unscheduled maintenance tasks	Moderate	Minimal
Scheduled maintenance tasks	Moderate	Minimal
Purchase hardware	Moderate	Minimal

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Pain Points

We also asked organizations about their key pain points in connection with the use of cloud office solutions. Unsurprisingly, security continues to top the list of challenges, with 51% of respondents including it among their top three choices, followed by service quality (30%) and integration with business systems/processes (27%). These findings are in line with what the quarterly 451 Voice of the Enterprise: Cloud Computing surveys tell us – when we ask cloud users about the three most important qualities when selecting a cloud provider, 'secure services' is the top choice.

The most concise way to state this problem is that cloud applications need some kind of a central control point. These applications have been so attractive and easy to adopt that many organizations never considered the security risks unique to the cloud, or the amount of control and visibility relinquished. If we look at the data in Figure 7, in addition to a lack of security, the lack of proper data governance and limited management functionality also point to IT giving up some degree of control when the organization moves to the cloud. Therein lies the core challenge with SaaS. In many cases, individuals, rather than the central IT organization, migrate data and workflows to the cloud. These individuals are not accustomed to performing the proper due diligence, and in many cases, security, compliance and governance considerations are not taken into account. This trend has accelerated in recent years, and companies must now deal with the legacy of relatively ungoverned cloud adoption.

A higher percentage of Microsoft Office 365 users (57%) cited security as a top pain point than did Google Apps users (37%). This may point to Google offering a more secure solution, or it may just mean that the demographic of Google Apps users is less concerned with security than those choosing Microsoft. In terms of service quality, we don't see a significant difference between Microsoft and Google users (29% vs. 32%). As for integration with business systems, Microsoft Office 365 users complain somewhat more than Google Apps users (29% vs. 22%). Given its cloud-native approach, Google Apps may require less tinkering, but at the same time the experience is different from most typical enterprise environments. Overall, this appears to be a good thing, as the ratings on satisfaction and effectiveness for Google Apps seem to be better in general than for Microsoft Office 365.

Figure 7: Cloud Office Solutions – Key Pain Points

Q: What are your key pain points related to your current cloud office solution? [n=269; select top 3]
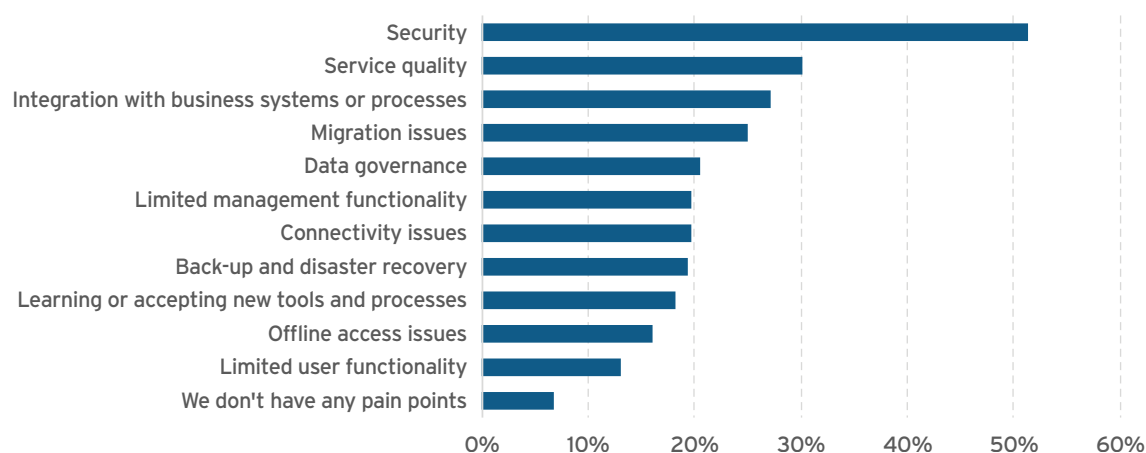
Focus on Innovation and Learning New Skills

Cloud applications allow IT professionals and end users alike to focus on more strategic and innovative tasks, as well as acquire new skills. According to our survey, these new skills include expertise in cloud services and vendors, expertise in cloud deployments, better understanding of business needs, and knowledge around IT security, among others (see Figure 8).

Figure 8: New Skills Learned

Q: What skills and awareness have you learned/developed since your organization has adopted cloud applications? [n=269; select all that apply]
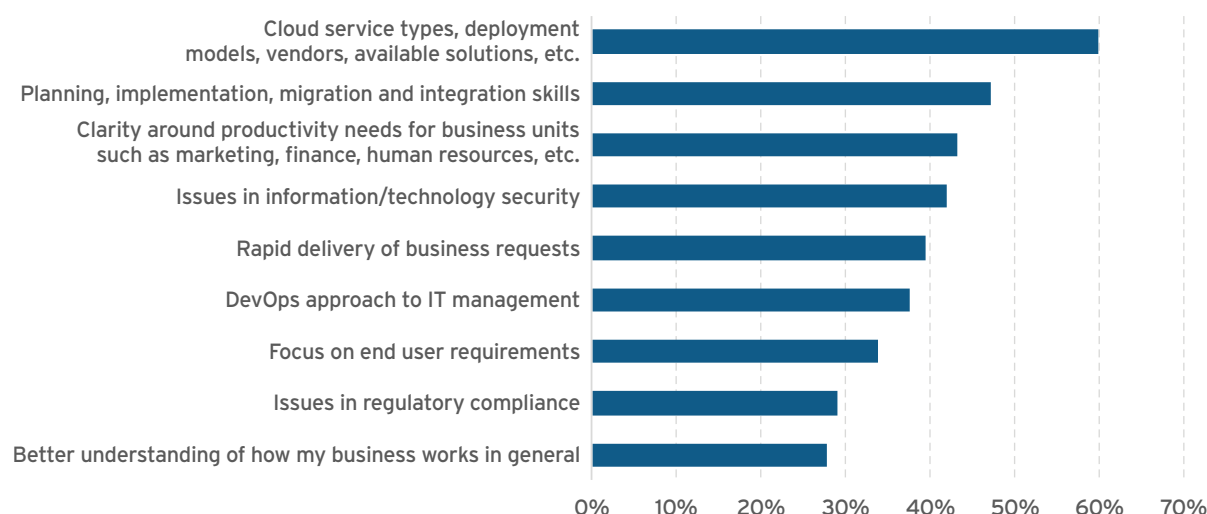
## Cloud Can Have a Significant Impact on Individuals' Work Life

In terms of day-to-day work life with cloud solutions, only 22% of survey respondents say their day-to-day work life is more or less the same as before adopting cloud applications. Meanwhile, 67% say they get things done more quickly, 52% say they are better able to satisfy end-user needs, and 41% say they feel more motivated and engaged (see Figure 9).

The survey data also shows that IT professionals at organizations that have most or all of their IT workloads and processes delivered via cloud services are significantly more engaged and motivated than those working at companies with a lower level of cloud usage (49% vs. 28% of respondents). This trend also holds true for the abilities to get things done more quickly, satisfy end-user needs and spend more time on innovation.

Also, cloud applications seem to have a somewhat more meaningful effect on larger organizations (over 1,000 employees) when it comes to motivation (cited by 47% of survey respondents vs. 36% at smaller firms), which can be partially explained by the fact that the focus on routine tasks such as maintenance, upgrades and backup had been relatively higher within larger companies before the shift to cloud applications.

Figure 9: Changes in Day-to-Day Work Life

Q: Since your organization started adopting cloud applications, how has your day-to-day work life changed?
[n=269; select all that apply]
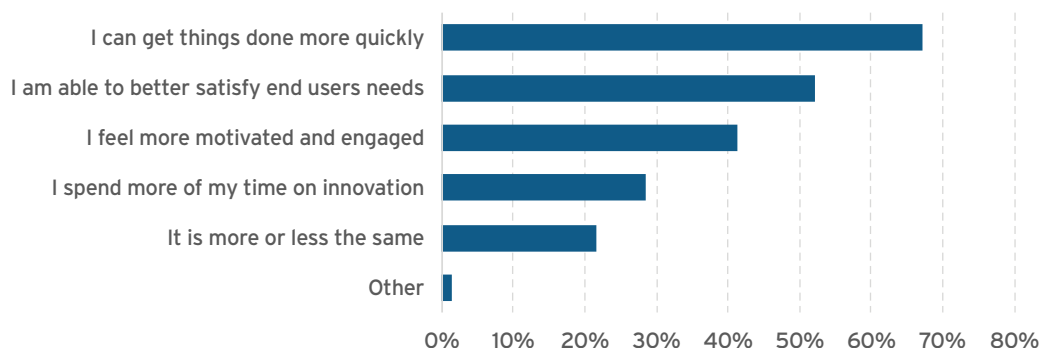
Conclusions

Cloud applications are at the heart of the evolution of IT – this is causing a shift in the skills of IT professionals and is changing the jobs they are doing. The use of cloud applications is impacting the culture in organizations broadly, and in IT departments especially. Offloading applications to the cloud frees technology administrators from mundane tasks and enables more innovation, while at the same time users become empowered and more productive.

Benefits to IT administrators in using cloud applications include a reduction in time spent on repetitive tasks (such as maintenance, upgrades and backup), increased ability to work remotely, and increased participation in business strategy and planning. For end users, the major benefits include enhanced synchronization of data among multiple devices, improved collaboration and less dependence on email.

Key pain points that our survey respondents highlighted with respect to cloud applications revolve around the lack of control and visibility – and that's where the core challenge with SaaS lies. Security, data governance and limited management functionality are among the highlighted areas, along with service quality and integration with business systems or processes.

When it comes to day-to-day work life, cloud applications mean getting work done more quickly and being able to better satisfy end-user needs. By working more quickly and efficiently, IT professionals are able to focus on projects they had no time for previously. Also, our survey respondents reported that with cloud applications in the mix, they feel more motivated and engaged. As the level of cloud usage increases within organizations, the impact of these various benefits increases as well.

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Csilla works on the 451 Advisory team, where she runs consulting projects and does custom market research – providing strategic guidance and competitive intelligence to IT vendors, service providers, enterprises and governments, in areas such as cloud, hosting, datacenters and enterprise security. Csilla was in charge of market intelligence and commercial exploitation in several EU-funded ICT research and innovation projects, and is coauthor of several forward-looking market studies prepared for the European Commission.

Before joining 451 Research, Csilla worked as a business consultant for Atos' Research & Innovation unit in Barcelona. Prior to that, she worked for ConAction, a Hungarian management consulting firm specialized in performance development, and was also part of the Nokia team rolling out 3GSM for Vodafone Hungary. Csilla is a multiskilled and multilingual business, management and technology consultant with international experience. She holds an Economist Master's degree specialized in International Business, Management and Consulting.

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Andrew Reichman is a Research Director for cloud data within the 451 Research Voice of the Enterprise team. In this role, he designs and interprets quarterly surveys that explore cloud adoption in the overall enterprise technology market.

Prior to this role, he worked at Amazon Web Services, leading their efforts in marketing infrastructure as a service (IaaS) to enterprise firms worldwide. Before this, he spent six years as a Principal Analyst at Forrester Research, covering storage, cloud and datacenter economics. Prior to his time at Forrester, Andrew was a consultant with Accenture, optimizing datacenter environments on behalf of EMC. He holds an MBA in finance from the Foster School of Business at the University of Washington and a BA in History from Wesleyan University.