



CLOUD MANAGEMENT REPORT 2017

How Cloud Leaders Are Driving
Organizational Transformation

INTRODUCTION

While many businesses began their cloud journey with a small project put on someone's credit card, public cloud usage has become the new standard. With this increase in scope has come a corresponding increase in complexity.

As the public cloud industry surges past the \$200 billion mark, the dramatic adoption of cloud technology makes the benefits of public cloud infrastructure abundantly clear. Most organizations today have adopted a strategic approach to cloud adoption - some of them taking "cloud-first" philosophies that prioritize IaaS and SaaS over on-premise options whenever possible.

This large-scale cloud adoption has repercussions across organizations. From IT technologists who determine architecture and day-to-day administration, through finance, legal and procurement in business operations teams, there is a new need for cooperation across business units throughout the organization to get the greatest benefits from cloud adoption.

DEFINITION

A Cloud Center of Excellence (CCoE) is a cross-functional team of people responsible for developing and managing the cloud strategy, governance, and best practices that the rest of the organization can leverage to transform the business using the cloud. The CCoE leads the organization as a whole in cloud adoption, migration, and operations. It may also be called a Cloud Competency Center, Cloud Capability Center, or Cloud Knowledge Center

The goal of this study is to examine the current state of cloud adoption, in the context of how leaders across departments are maximizing the benefits of the cloud in their organizations. It investigates how IT and business operations leaders are working to gain the most from their cloud investments, what they have achieved in managing these environments, and what challenges remain. We consider how organizations are maturing their cloud leadership, and the role of Cloud Center of Excellence (CCoE).

This report, sponsored by CloudCheckr, is based on a survey of 301 decision makers in IT or business operations roles. All had responsibility for public infrastructure cloud decisions (IaaS). Questions were asked on a wide range of subjects including current challenges with cloud adoption, maturity of adoption, communication between teams, and future expectations and needs.

KEY FINDINGS

The full potential of the cloud has not yet been realized

- › 94% of respondents face challenges in public cloud adoption
- › 81% say they need to improve communication between departments
- › Executives (43%) are more likely to report they are very confident in their cloud visibility than their staff (16%)
- › 33% report that their business leadership have a strong understanding of the cloud

Organizations adopting CCoE for cloud leadership and vision

- › 47% have formed some kind of CCoE
- › 63% have added new roles to deal with cloud adoption
- › Companies are held back from establishing CCoEs by a wide range of factors

Organizations benefit from a Cloud Center of Excellence

- › 83% of those with a CCoE say it is effective
- › 96% would benefit from a CCoE
- › Top benefits of a CCoE reported include reducing security risks (56%), reducing costs (50%), and improving ability to be agile and innovate (44%)

DETAILED FINDINGS: THE FULL POTENTIAL OF THE CLOUD HAS NOT YET BEEN REALIZED

Cloud environments lack control and visibility

Cloud computing has shifted from being a disruptive force to becoming the new normal in today's business world. But with this rapid adoption has come a series of growing pains. Most enterprises have not yet optimized their cloud ecosystem, which holds them back from maximizing the potential benefits of their investment in public cloud infrastructure.

To optimize any environment, it is important to have both visibility and control. This is particularly true of a public cloud infrastructure. While many advantages can be achieved from the flexibility to spin up an environment in an instant, it can easily result in chaos without some structure in place to increase visibility and take action. The greatest advantages are gained only with complete confidence in the visibility and control of all aspects of the cloud environment.

For most cloud adopters, however, this has not yet been achieved. Only about a quarter (26%) report that they are very confident that they have visibility into all aspects of their company's cloud environment. A similarly small number (24%) report that they have complete confidence in their ability to control their public cloud environment.

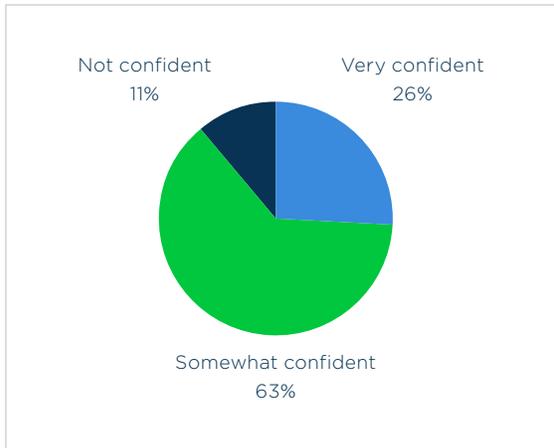


FIGURE 1: How confident are you that your company has VISIBILITY into all aspects of your company's public cloud environment?



FIGURE 2: How confident are you that your company has CONTROL of all aspects of your company's public cloud environment?

Lacking visibility and control into its cloud ecosystem can be a risky position for any business. However, the issue is complicated by differences in perception by senior leadership and day-to-day contributors. There is a distinct mismatch between what executives think about their visibility and control, and what the managers and individual contributors on their teams think.

Executives are much more likely to be very confident about visibility (43%) and control (37%). This level of confidence is dramatically higher than what is reported by their managers (16% and 17% respectively) or the individual contributors who are most likely to be doing the hands-on work (18% for both). This discrepancy in views can amplify the existing challenges in public cloud usage.

Executives who are overconfident about their cloud environments may be missing important information and introducing risk into their teams. They may also be underestimating how much investment in the cloud is necessary to achieve strategic goals, or which tools may be required to effectively manage their infrastructure.

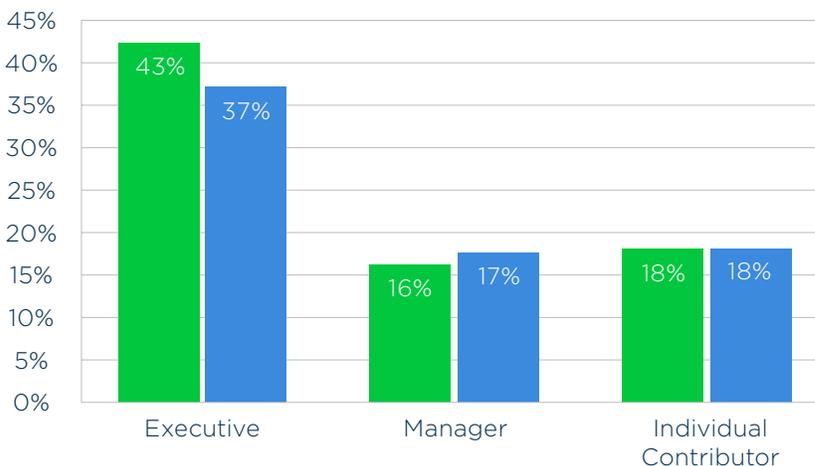


FIGURE 3: "Very Confident" By Job Level

■ Very confident visibility
 ■ Very confident control

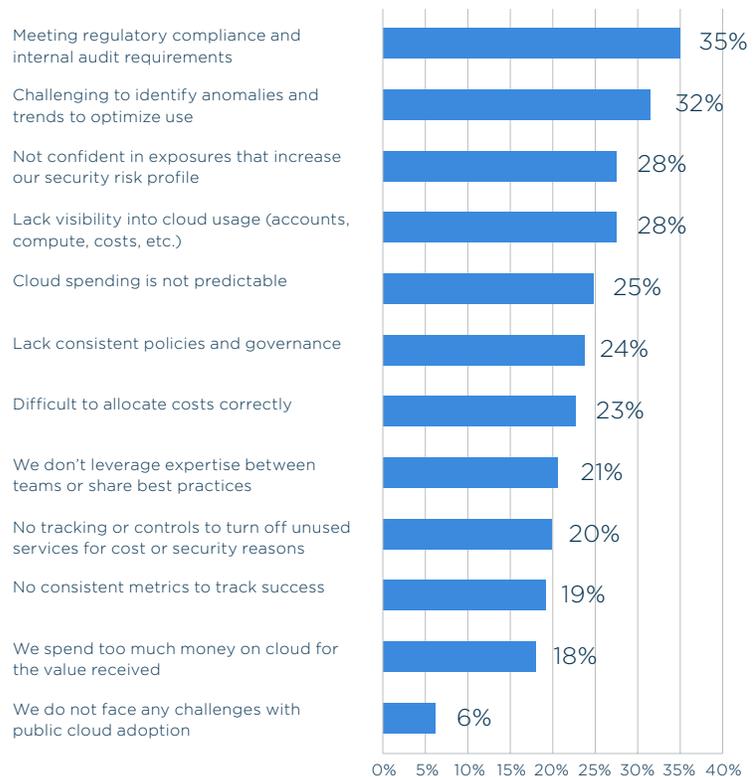
Public cloud adoption continues to be challenging

Even with years of experience with public cloud solutions, many enterprises face significant challenges in cloud adoption. The vast majority of companies that have adopted public cloud (94%) report challenges.

While the specific challenges vary from organization to organization, the most frequently reported issues include meeting regulatory compliance and internal audit requirements (35%), issues with identifying anomalies and trends (32%), lack of confidence in security exposure (28%), and lack of visibility into usage (28%).

In each of these cases, a knowledge gap appears to play a significant role in the challenges teams face. Given the complexity of public cloud systems, it can be difficult to understand a cloud deployment well enough to overcome these concerns by spotting trends or identifying security risks.

FIGURE 4:
Does your company face any challenges with your public cloud adoption?



Clear need for improved communications

As cloud deployments increase in scope, they affect more business units within the organization. Communication within and between teams, therefore, has become an increasingly significant component of getting the most from cloud investments. Cross-organizational communication between IT and business operations teams can be particularly critical in understanding implications to cost, security, and more.

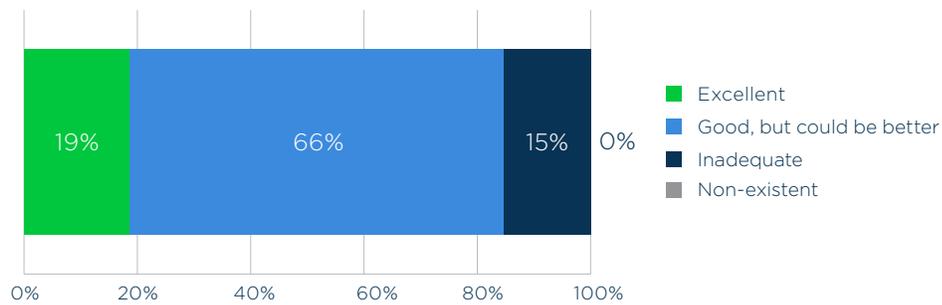


FIGURE 5: How would you describe the level of coordination and communication between IT and business operations when it comes to issues related to public cloud (costs, security, complexity, etc.)?

However, less than 1 in 5 (19%) cloud stakeholders give their organization the top grade in cross-team communications. More than 4 in 5 (81%) report that the coordination and communication between IT and business operations could be improved. With stronger lines of communication, teams can reach a new level of accountability and visibility into cloud infrastructure.

It should be noted that organizations are putting significant effort into communications. Not a single participant (0%) felt that communication between teams was non-existent. This level of interest indicates that the most significant challenge is not getting buy-in, but implementing an effective model for cross-departmental coordination.

With an increase in the number of teams involved in the cloud, the variety of service providers, and the availability of tools, the public cloud has grown dramatically more complex. This is making cross-departmental communication more difficult.

Exactly half (50%) rate their departments as being more coordinated with activities related to public cloud usage than two years ago. This number is surprisingly low, given the growing rate of adoption of cloud technology during this time - and the corresponding increase in its importance. Even more worrisome is the finding that during the same time period, more than 1 in 5 companies (21%) saw their level of coordination actually drop.

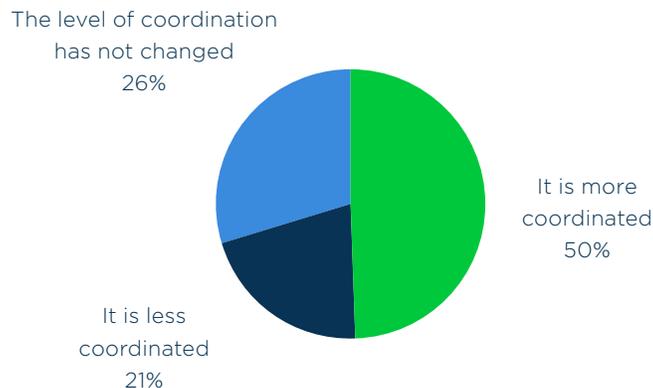


FIGURE 6: How has your company's coordination of public cloud usage between departments (i.e. IT and finance) changed in the past two years?

Cloud not understood by business leadership

Business leadership that understands the value of the cloud and how it fits into technology strategy has a clear advantage in identifying opportunities to improve business outcomes. A well-informed leadership team is also essential to successfully navigating areas of potential risk and optimizing expenditures.

Unfortunately, this is another area where enterprises are not maximizing their potential. Only a third (33%) of cloud adopters report that their company's business leadership clearly understands the cloud. In many cases, it seems that IT, finance, and security teams are moving faster in cloud adoption than executive leadership, creating a gap with significant room for improvement.

Fortunately, most companies are not starting from scratch. Only 14% say that their business leadership is confused or uninformed about cloud. The typical situation (53%) is for leadership to have a basic idea, even if they don't know the details. Building on that basis to make sure senior leadership is well-informed about opportunities and challenges in the cloud is within reach for these organizations.

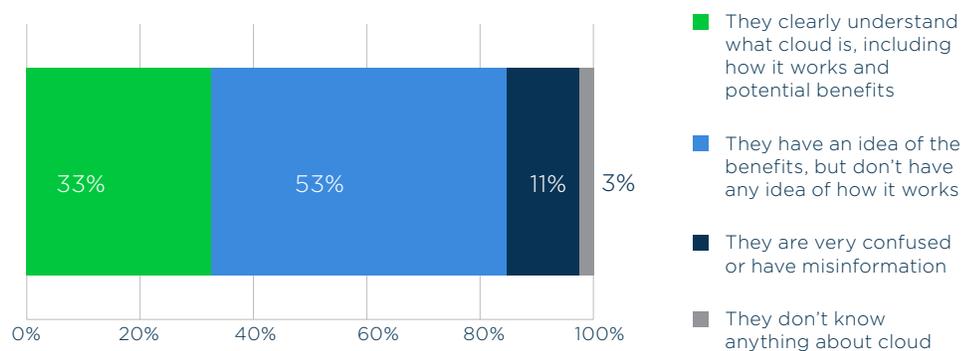


FIGURE 7: How would you describe the general understanding of the cloud among your company's business leadership?

DETAILED FINDINGS: ORGANIZATIONS ARE ADOPTING A CCOE FOR CLOUD LEADERSHIP AND VISION

Organizations moving toward a Cloud Center of Excellence

As the public cloud increases in importance, enterprises have adapted in a number of ways - including increasing headcount, educating existing IT personnel, adding third-party cloud management tools, and investing in MSPs, CSPs and other cloud resellers.

These decisions are made across the organization and have varying effects. One important measure of maturity of cloud adoption is the centralization and vision of management in leading these strategic decisions. To understand this aspect of cloud adoption, we gave participants a definition of a Cloud Center of Excellence (CCoE) and asked them questions about it.

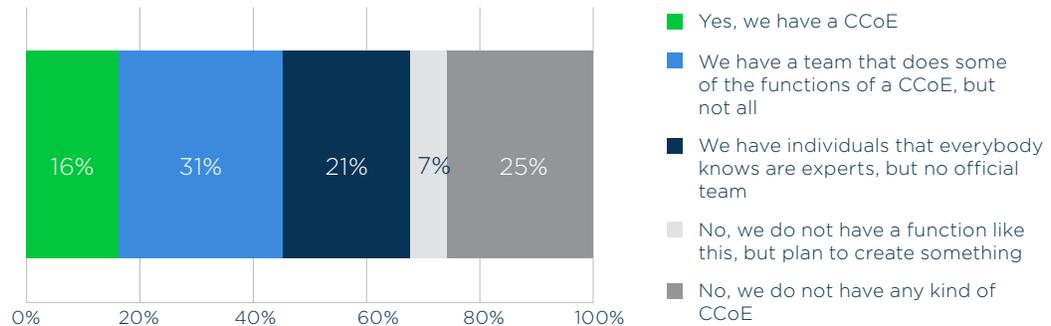


FIGURE 8: Do you consider your company to have a CCoE

This study shows a clear movement towards deployment of a CCoE. Only a few companies have achieved the maturity of a fully functioning CCoE (16%). As a nascent concept, best practices for the CCoE remain poorly developed, which may explain these results. At the same time, almost half (47%) either have a CCoE or a team that performs at least some of the key functions. This is a clear indication that organizations are moving to consolidate cloud expertise and establish leadership in enterprise-wide cloud adoption, best practices, and policies.

Among the half that don't have a CCoE, many have taken first steps toward it. This may take the form of individuals who are recognized in their company as cloud experts, taking on some of the responsibilities without holding a formal role (21%). A further 7% have plans to create a CCoE.

While it is concerning that a quarter (25%) do not have any kind of CCoE, nor plans for one, those are in the minority. This is not surprising among smaller enterprises - and those that are less invested in the cloud. But for those with significant cloud deployments or planned deployments, more centralized cloud management and expertise should be expected to increase.

Most have added resources to deal with cloud adoption

A clear sign of commitment to a new technology paradigm is dedicating resources to success. This study presents clear signs of maturity among cloud adopters, with two-thirds of companies (63%) reporting that they have added new roles or headcount to deal with their cloud adoption.

These new roles are fairly evenly divided between new technology functions (41%) and new business operations functions (39%). About a quarter of companies (24%) have invested in new resources for both technology and business operations teams. This is reflective of the surge in the amount, and the elevated importance, of public cloud deployments.

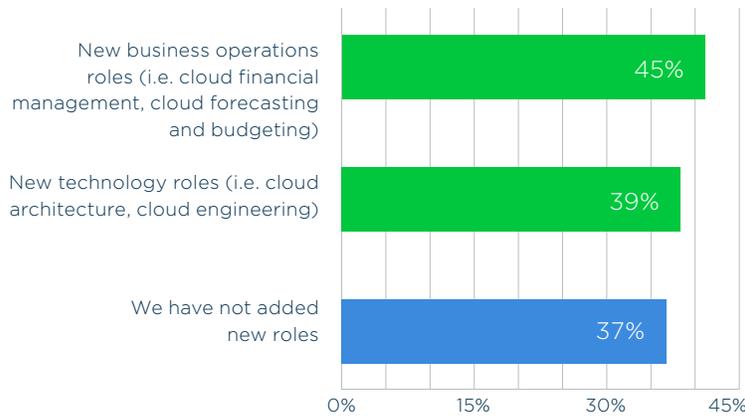


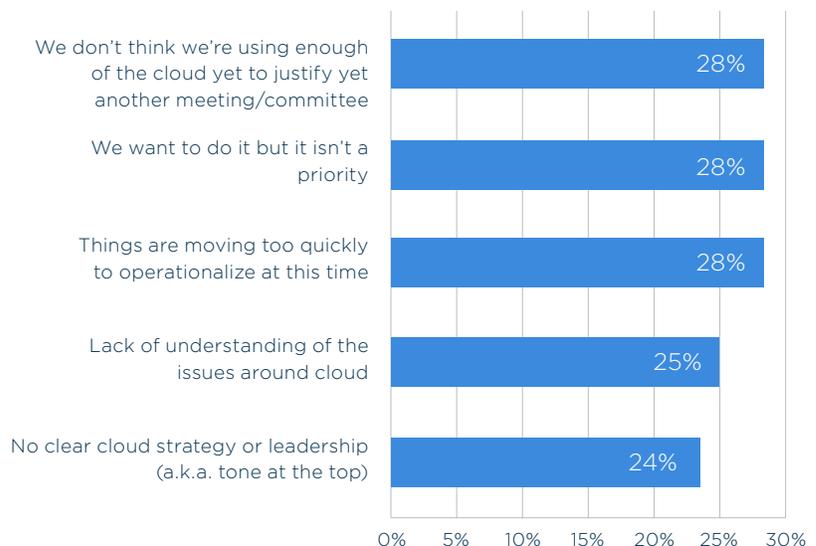
FIGURE 9:
Has your organization added headcount or roles to deal with adoption of public cloud technology?

Wide range of reasons for not establishing a CCoE

We asked participants who did not have a fully functioning CCoE if there was anything that was preventing adoption. A wide variety of reasons were cited. Top among those was a belief that they weren't using enough cloud yet to justify the effort (28%), implying that a CCoE would be adopted when they increased their adoption.

Other reasons cited included lack of priority (28%), and cloud adoption moving too quickly to operationalize effectively (28%). Slightly less of an issue, but still a barrier to establishing a CCoE, were a lack of understanding around the issues of the cloud (25%) and lack of leadership (24%). Each of these concerns centers around a lack of planning and education around cloud adoption. In many cases, organizations have shifted into the cloud sporadically - with individual teams procuring and deploying infrastructure, rather than centralized business strategy setting parameters and best practices as a guide.

FIGURE 10:
What prevents your company from establishing a fully functional and effective CCoE?



Little investment has been made in tools

One clear area of maturity in cloud deployments is tool adoption. Tools that help to manage visibility, control, compliance, and other aspects of cloud adoption are key to optimization. However, the most common type of tools used to manage cloud environments are the native tools from cloud providers such as AWS and Azure (59%). While critical to success, these built-in tools lack key components necessary to fully optimize a cloud environment.

Almost half of experts surveyed (48%) are using spreadsheets or other manual methods, while a third (34%) have built in-house tools. Given the complexity of cloud technology and the difficulty inherent in building in-house tools, these methods are not sustainable for most enterprises. Only about a quarter of respondents (26%) have made an investment in tools from third-party vendors, and just 17% report using outsourced solutions such as MSPs and CSPs.

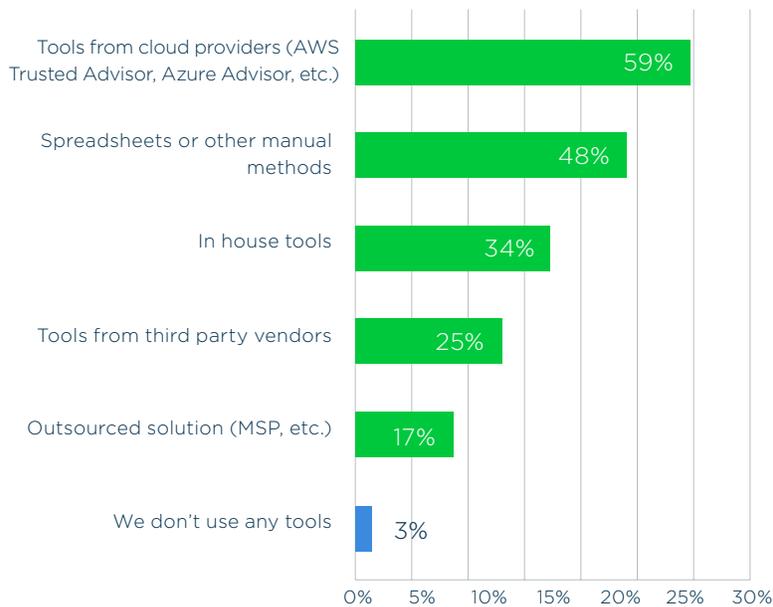
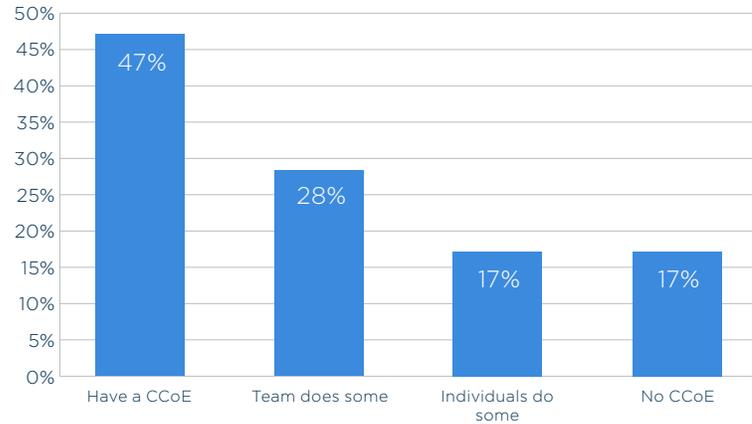


FIGURE 11:
What tools does your company use to manage, track, allocate, and optimize costs related to public cloud usage?

Among organizations with a fully functional CCoE, including centralized planning and leadership, there is a strikingly different approach to adoption of third-party tools. Nearly half (47%) use tools from third-party vendors, compared to only 17% of companies that do not have a CCoE. This is a clear indication that organizations with advanced cloud deployments are much more inclined to use third-party tools to maximize their cloud investments.

FIGURE 12:
“Tools from third-party vendors”



DETAILED FINDINGS: ORGANIZATIONS BENEFIT FROM A CLOUD CENTER OF EXCELLENCE

CCoEs are very effective

Those respondents who have a CCoE, including those with a fully functioning CCoE and those with a team doing at least some of the job of a CCoE, indicate that the cloud leadership team is highly effective. The vast majority (83%) report that their CCoEs are very effective.

Almost half (48%) say that there are opportunities to do even more. As enterprises adapt to the increasing scale and importance of public cloud deployment, training and formalized structures may shift these numbers in a more favorable direction.

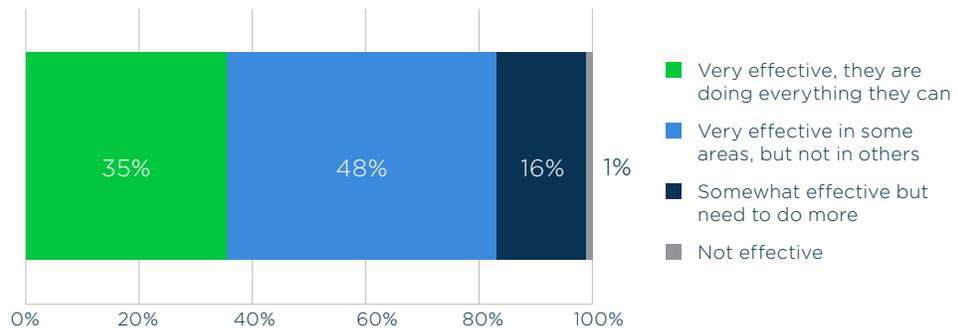
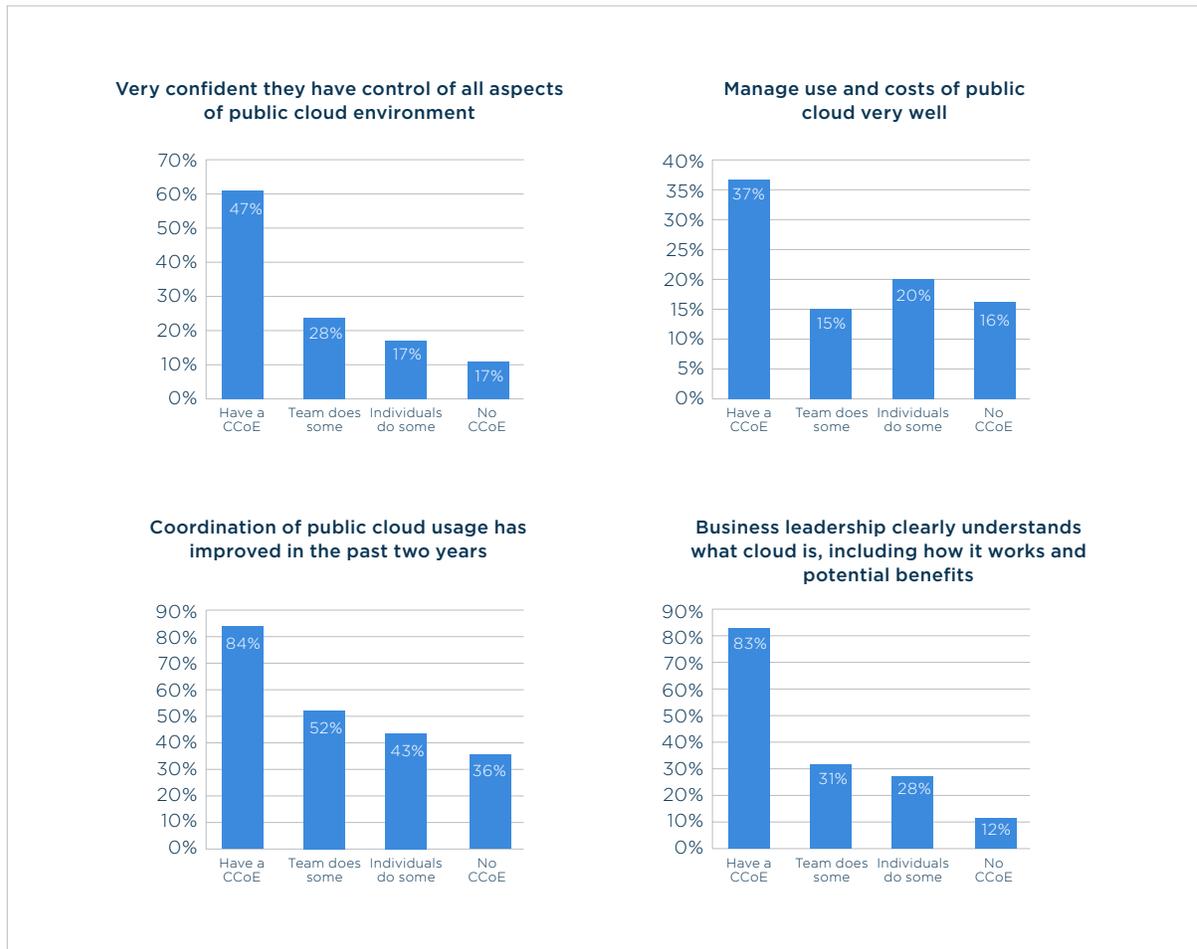


FIGURE 13: How effective is your CCoE?

Critically, those organizations that have a fully functioning CCoE report better results across all measures of cloud maturity.

Across the board, investing in a CCoE goes hand-in-hand with confidence in control of the cloud environment, ability to manage use and costs, coordination between teams involved in cloud management, and cloud-savvy among business leaders.

FIGURE 14



Establishing a CCoE offers a wide range of benefits

There is broad agreement that companies would benefit from a CCoE. The vast majority of cloud adopters (96%) report that it would help their organization if they had a CCoE. This includes those that already have a fully functioning center of excellence in place and those that don't even have a plan.

The top expected benefit is a reduction in security risks (56%), followed by a reduction in costs (50%). A wide range of other potential benefits were reported including ability to innovate and be agile (44%), better alignment and communication (44%), automation of critical tasks (44%) and accurate expense allocation (39%).

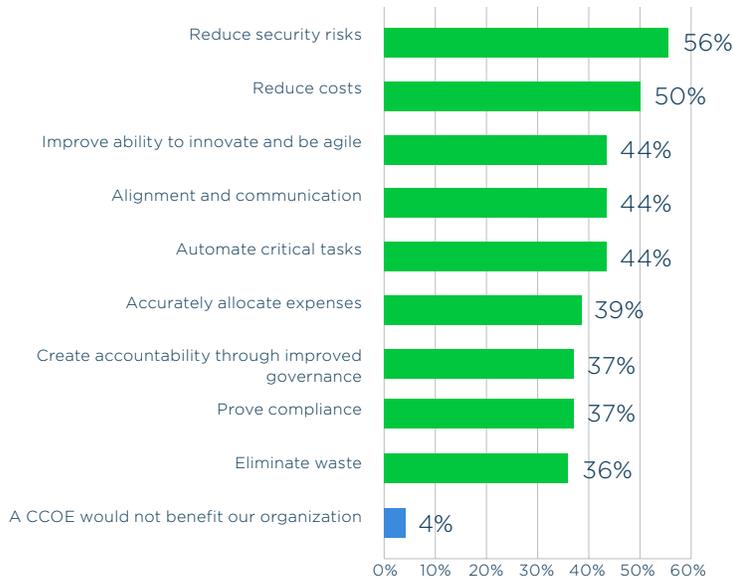


FIGURE 15:
Which of the following potential benefits of a cloud center of excellence (CCoE) would be helpful to your organization?

Establishing a center of excellence focused on the cloud has an array of benefits across the enterprise. As teams adapt to the surge in public cloud adoption and its growing impact across departments, building a CCoE offers the opportunity for organizations to implement strong leadership, planning, guidance, and best practices to steer and optimize public cloud usage.

Survey Methodology and Participant Demographics

Independent sources of IT and business operation professionals were invited to participate in an online survey. A total of 301 individuals completed the survey. All had responsibility for decisions related to public infrastructure cloud (IaaS) adoption and use. Participants represented a wide range of roles, company sizes, industries and job levels.



FIGURE 16: Job Function, Job Level, and Company Size

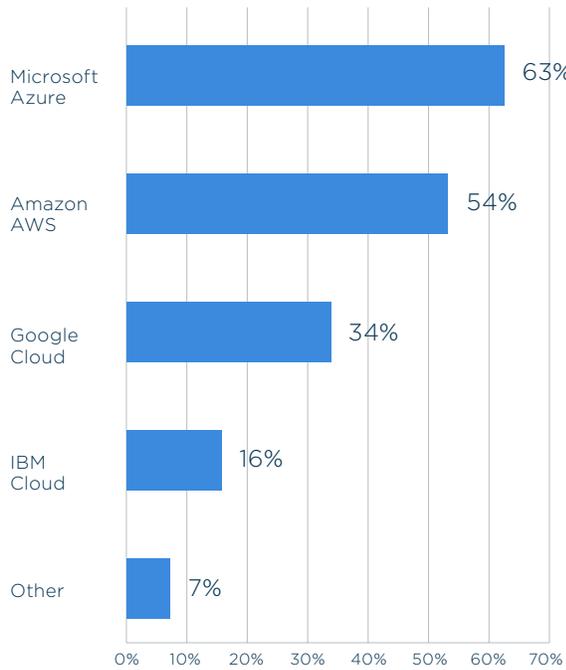


FIGURE 17: Public Infrastructure Cloud (IaaS)

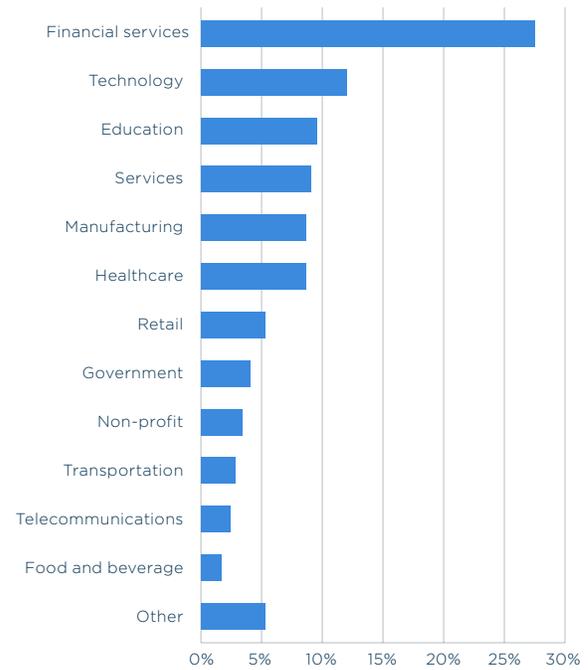


FIGURE 18: Industry

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