



Government
Business
Council

Channeling the Cloud

A Candid Survey of Federal Leaders on the State of Cloud Transformation in 2017

Underwritten by

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Deloitte.

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Overview

Purpose

Pressured by recent legislation and the cost-cutting measures of a new administration, federal agencies across government recognize that operating by the status quo is no longer sustainable. Advancements in cloud computing have opened up new capabilities to store, delegate, and retrieve information on demand through a scalable, secure environment. At the same time, the leaders responsible for driving this migration still face a number of obstacles in the journey: security concerns, cost and control, governance, as well as the problem of legacy IT.

In order to find out how federal decision-makers perceive these challenges and what they would like to see out of digital transformation going forward, Government Business Council (GBC) on behalf of Deloitte undertook an in-depth research study in November 2017.

Methodology

To assess the perceptions federal employees have regarding current cloud capabilities and data center consolidation, GBC deployed a survey to a random sample of government respondents in November 2017. Over 550 senior leaders responded, with 63 percent holding positions at the GS/GM-13 level or above (including Senior Executive Service and officers of equivalent rank). Respondents represent a variety of job functions, with highest input from program/project managers, law enforcement, technical/scientific specialists, and acquisition/procurement officers. At least 47% are supervisors who oversee one or more direct reports.

Executive Summary

Cloud continues to gain traction, with cost savings a recognized benefit

A majority of respondents say their agency has moved at least some or more applications to the cloud, and more than two-thirds say they now require some degree of cloud access to be successful at work. Most point to cost savings, improved efficiency, and expanded data-sharing as the top reasons for making the transition. Many respondents would like to see cloud provide database, analytics, and management tools going forward.

Security, cost, and legacy IT are common obstacles to optimization

The progress in reducing or optimizing existing data centers attracts little confidence from many. 45% of respondents believe their agency is behind schedule when it comes to reducing its data center footprint. Security concerns, cost, and difficulties configuring legacy IT are the most common impediments to this effort. Many still need assurance that on-premise data will be safely reallocated and that legacy IT can be sunset with minimal disruption to operations.

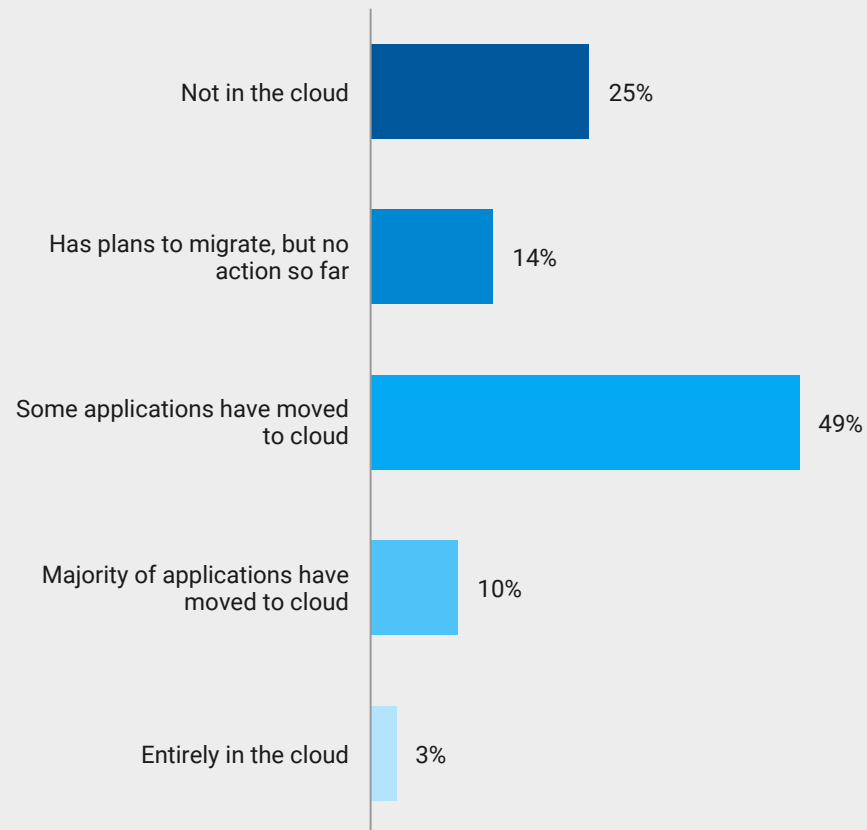
Poor governance and limited communication keep many in the dark

Many feel that strategy related to cloud migration and data center optimization has not been communicated. 47% of respondents feel that cloud governance is non-existent, and 71% report using an application on at least one occasion which fell outside the agency-approved IT toolkit. This lack of governance invites significant security vulnerabilities and logistical liabilities. While respondents can be spared of the technical minutiae governing cloud environments, they can also benefit from greater awareness of general strategy.

Research Findings

A majority of respondents cite progress to the cloud, but 39 percent have yet to migrate

How would you describe your organization's progress in moving towards a cloud computing environment?



62%

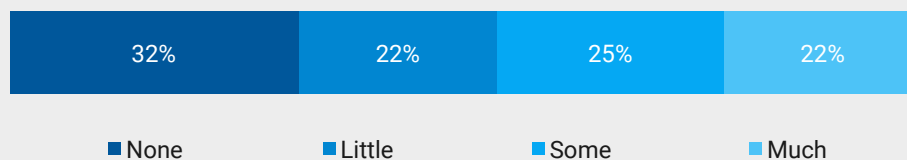
of respondents say their organization has moved at least some or more applications to the cloud.

Percentage of respondents, n=360

Note: Percentages may not add up to 100% due to rounding

At least two-thirds of respondents depend on cloud access to complete work assignments

To what extent does your ability to produce successful work depend on having access to a cloud platform (i.e. access to shared network, office applications, etc.)?

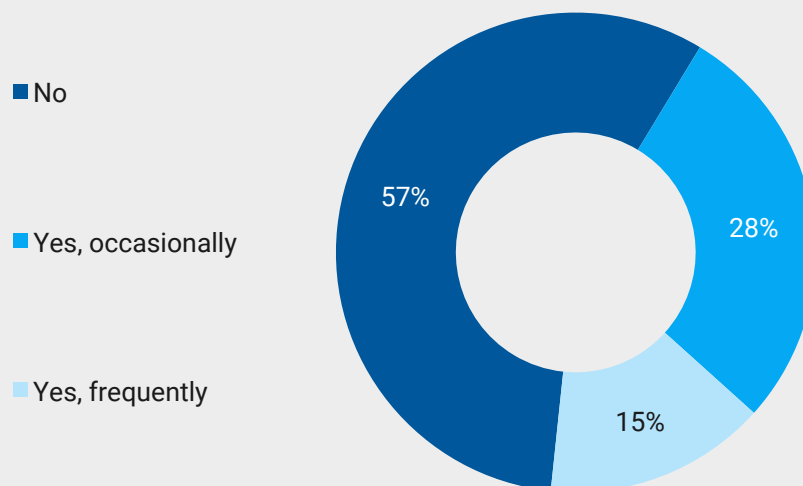


Percentage of respondents, n=481
Note: Percentages may not add up to 100% due to rounding

69%

of respondents say at least a little degree of their work output depends on having ready access to a cloud platform.

Do you make use of cloud computing technologies (i.e. shared access to network, applications, etc.) to carry out your daily work duties?



Percentage of respondents, n=539
Note: Percentages may not add up to 100% due to rounding

43%

of respondents identify as occasional or frequent users of cloud technology when carrying out their daily work duties.

Over a quarter of respondents use cloud for storage, applications, and network purposes

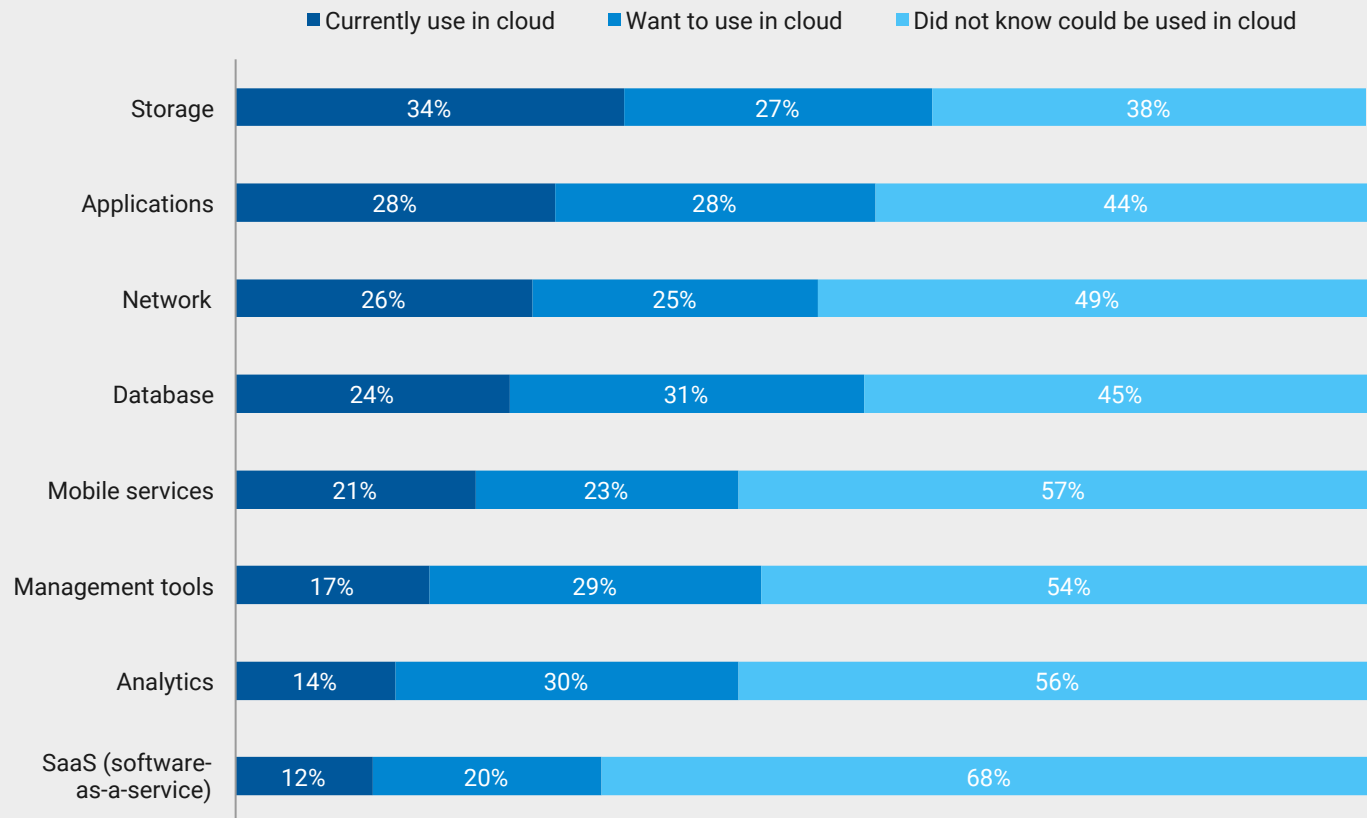
Storage, applications, and network are the most commonly cited uses of cloud computing currently in use by respondents. Among the items most desired for use in the future, database, analytics, and management tools rank among the top.

Overall, though, many respondents lack awareness of cloud's versatility: 68 percent did not know of its association with SaaS, and 57 percent were unaware that cloud could facilitate mobile services.

68%

of respondents say they did not know of cloud's ability to host software-as-a-service (SaaS) applications.

Which items do you (1) currently use in the cloud, (2) want to use in the cloud, or (3) did not know you could use in the cloud?



Percentage of respondents, n varies = 393-481
Note: Percentages may not add up to 100% due to rounding

The potential to save costs, improve efficiency, and expand data sharing propels agencies to the cloud

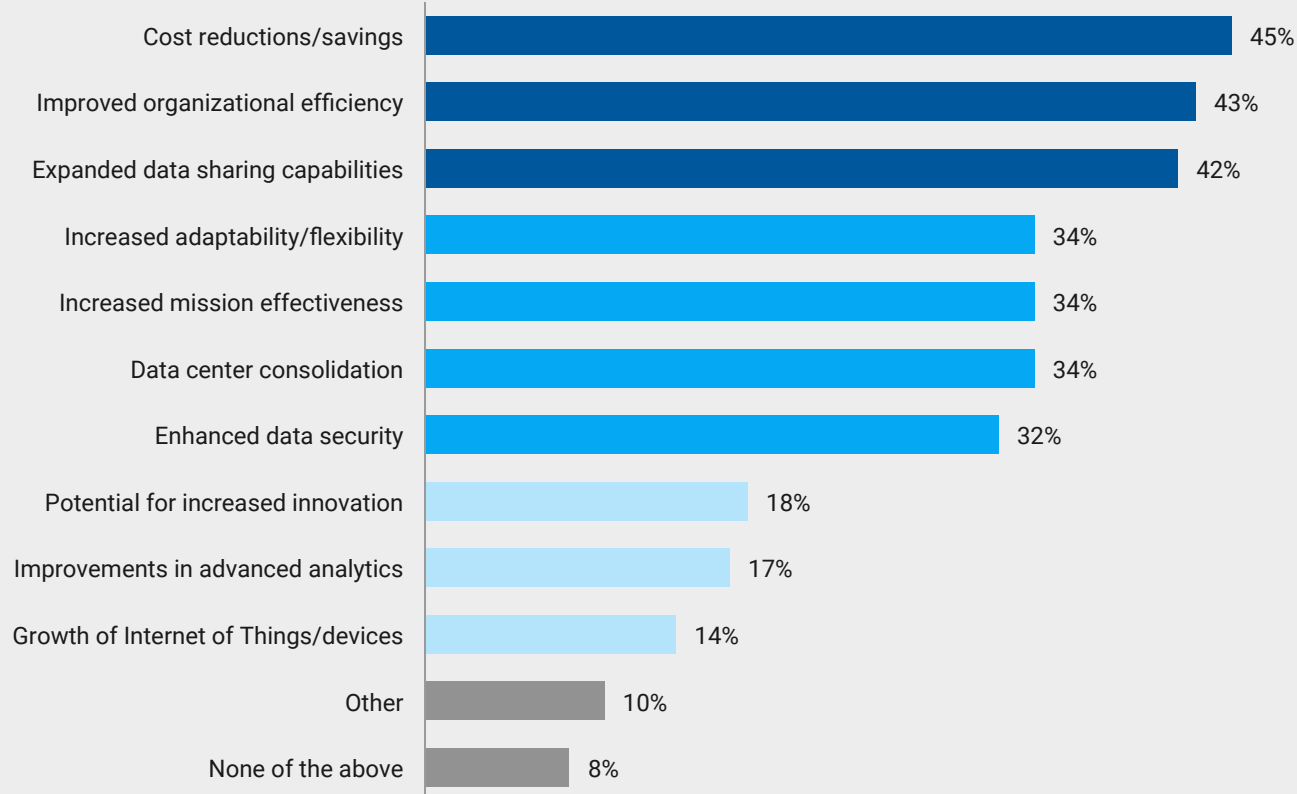
As evidence-based policymaking meets leaner budgeting measures, agencies are under pressure to optimize efficiencies while cutting operating costs. Therefore, it makes sense that many see cloud as a financially viable opportunity.

The Government Accountability Office (GAO) said as much last year when it found agencies could reap as much as \$8 billion in savings by continuing closure of the government's 11,000 data centers and moving assets over to the cloud.¹ 45 percent of respondents seem to agree.

45%

of respondents believe the potential for cost reductions is a leading incentive for their agency's move to the cloud.

In your opinion, what are the primary factors driving your organization's adoption of cloud technologies? Please select all that apply.



Percentage of respondents, n=282
Respondents were asked to select all that apply

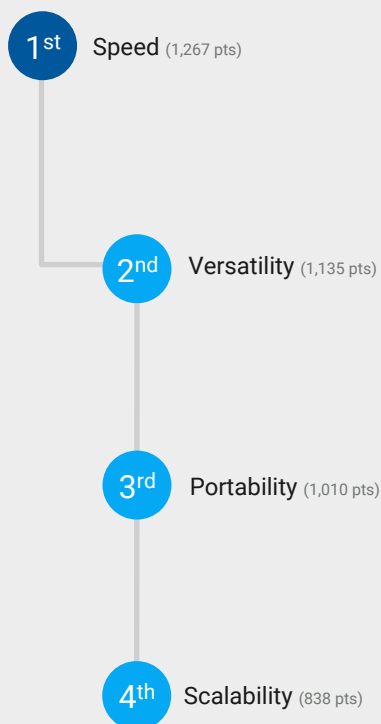
1. Nextgov: "Have A 'No Cloud' Policy? Here's Why That's Old Fashioned." <http://www.nextgov.com/cloud-computing/2016/11/no-cloud-policies-will-be-rare-no-internet-policies-today-2020-says-gartner/133524/>. November 30, 2016.

Respondents look for speedy and versatile technology to enhance their workflow

69%

of respondents ranked 'speed' as their first or second choice when asked to prioritize attributes of new technology designed to improve workflow efficiency.

Which attributes should your organization prioritize the most when considering technology that can improve workflow/application efficiency?

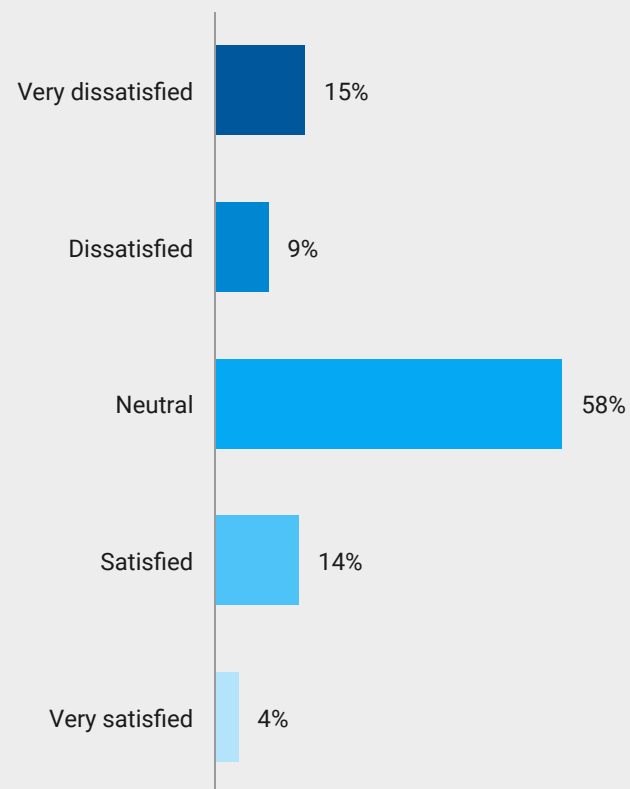


Ranked by Borda count, n=425

24%

of respondents are either dissatisfied or very dissatisfied with the performance of current cloud-based applications at their agency, compared to 18% of those who reported a positive experience.

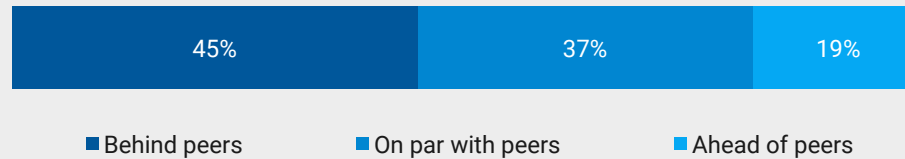
How satisfied are you with the cloud-based applications currently offered by your organization?



Percentage of respondents, n=374
Note: Percentages may not add up to 100% due to rounding

Close to half of respondents believe their agency's progress in reducing data centers lags behind peers

Compared to other agencies, how would you evaluate your organization's progress in reducing its data centers in the last year?



Percentage of respondents, n=178
Note: Percentages may not add up to 100% due to rounding

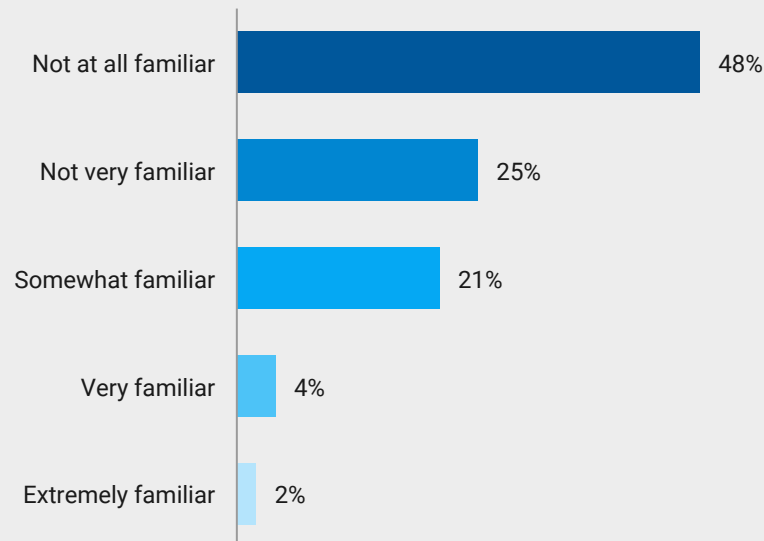
45%

of respondents feel their agency has under-delivered in comparison with peers when it came to reducing their data center footprint in the last year.

37% say progress is on par with others.

19% believe they are ahead of peers.

How familiar are you with your organization's data center strategy (i.e. its reasons/objectives for closing data centers)?



Percentage of respondents, n=411
Note: Percentages may not add up to 100% due to rounding

73%

are either 'not very' or 'not at all' familiar with their organization's data center strategy.

With 67% of respondents identifying as GS/GM-13 rank or higher, the finding suggests that strategy remains unclear to a majority of senior decision-makers as well.

The opportunity to shed maintenance costs is a primary driver for data center closures

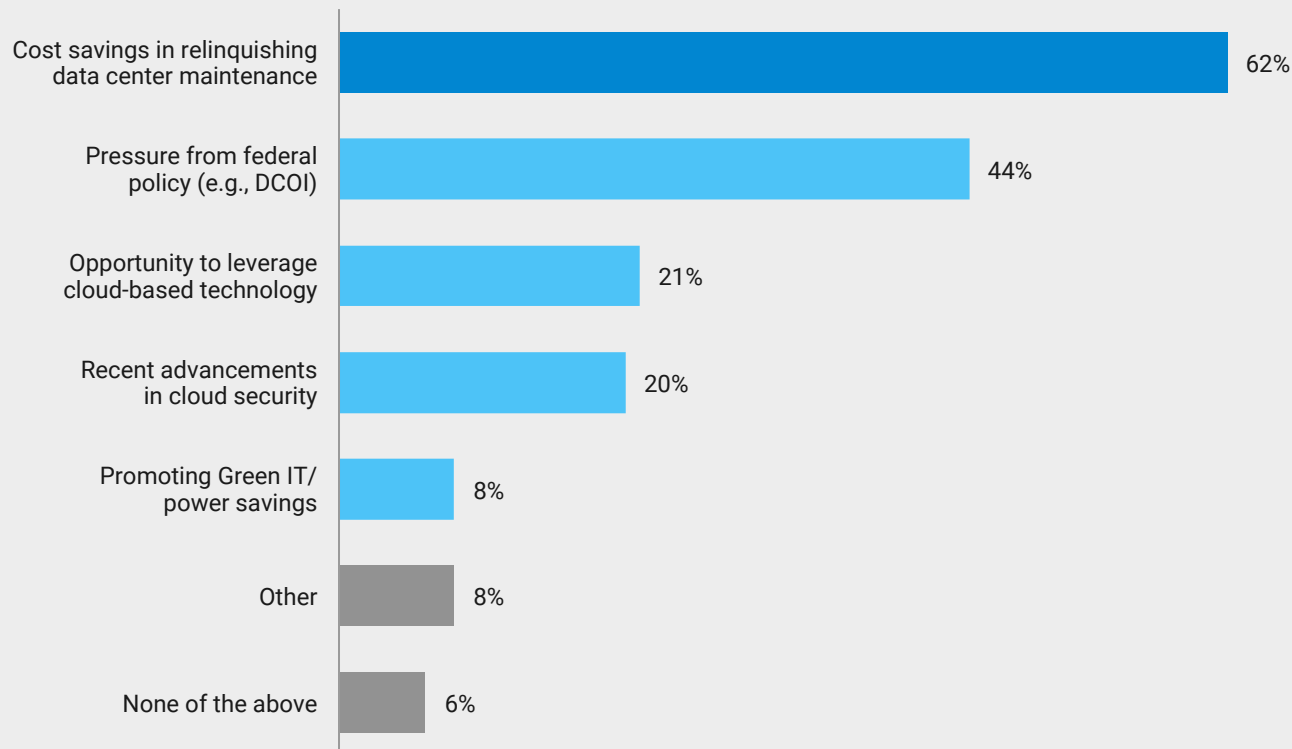
The government spent roughly \$5.4 billion in 2014 on maintaining its vast share of data centers.² Understandably, 62% of respondents say the ability to reduce these expenditures and save costs is the top driver for their agency's continued data center closures.

However, a recent report by GAO finds that agencies struggle to make progress on this front, casting doubt on a central goal of the 2016 Data Center Optimization Initiative (DCOI) — that of reducing federal-wide maintenance costs to \$2.7 billion by 2018.³

62%

say their agency's decision to close data centers hinges on the value reaped by giving up maintenance costs.

In your opinion, what factors are most responsible for driving your organization's efforts to close data centers? Please select all that apply.



Percentage of respondents, n=216
Respondents were asked to select all that apply

2. *Data Center Knowledge*: "White House Orders Federal Data Center Construction Freeze." www.datacenterknowledge.com/archives/2016/03/04/white-house-orders-federal-data-center-construction-freeze. March 4, 2016.
3. GAO: "Agencies Need to Address Challenges and Improve Progress to Achieve Cost Savings Goal." www.gao.gov/assets/690/686574.pdf. August 2017.

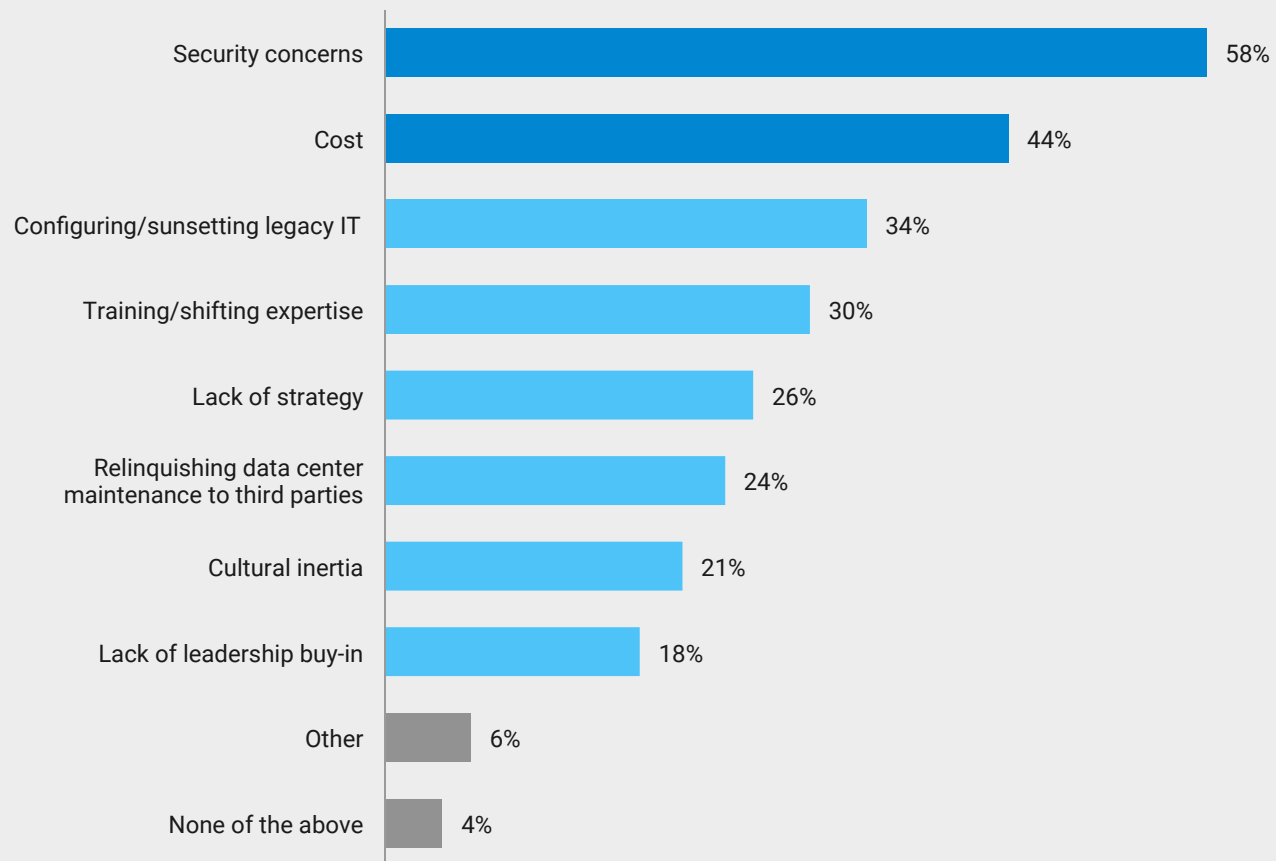
Anxieties over security and cost are common concerns to agencies pursuing optimization

As agencies optimize existing data centers, a range of challenges threaten to derail their efforts. Security, cost, and difficulties in sunsetting legacy IT to make way for new equipment top the list of concerns. And at least a quarter of respondents point to gaps in employee training (30%) and general lack of strategy (26%) as additional hindrances.

58%

of respondents cite security as a concern in their agency's data center optimization.

In your opinion, what are the top concerns or challenges your organization faces as it seeks to consolidate and optimize its data centers? Please select all that apply.



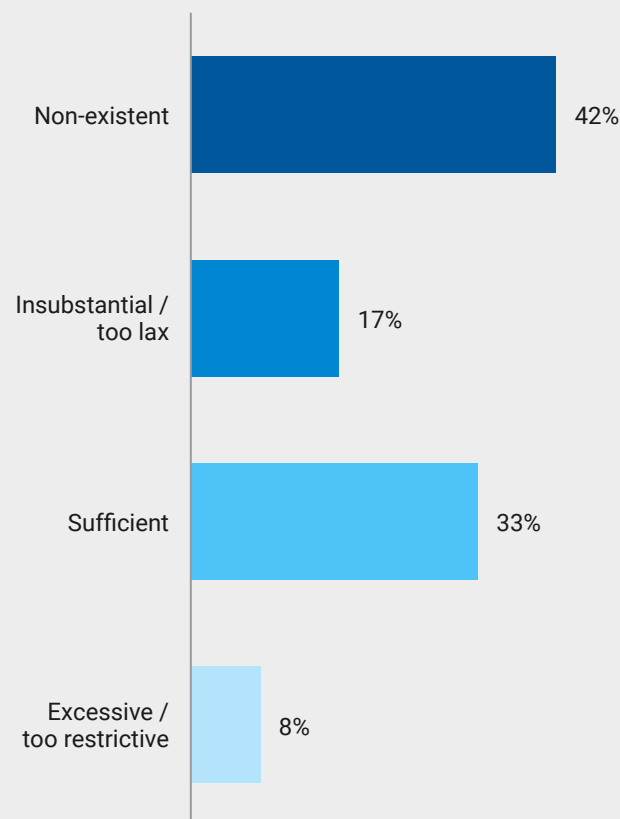
Percentage of respondents, n=252
Respondents were asked to select all that apply

71 percent of respondents have used unauthorized IT on one or more occasions to aid productivity

42%

of respondents describe their organization's cloud governance as non-existent, and another 17% believe what exists is either too lax or insubstantial to meet mission needs.

"I feel the level of cloud governance my organization provides is _____."

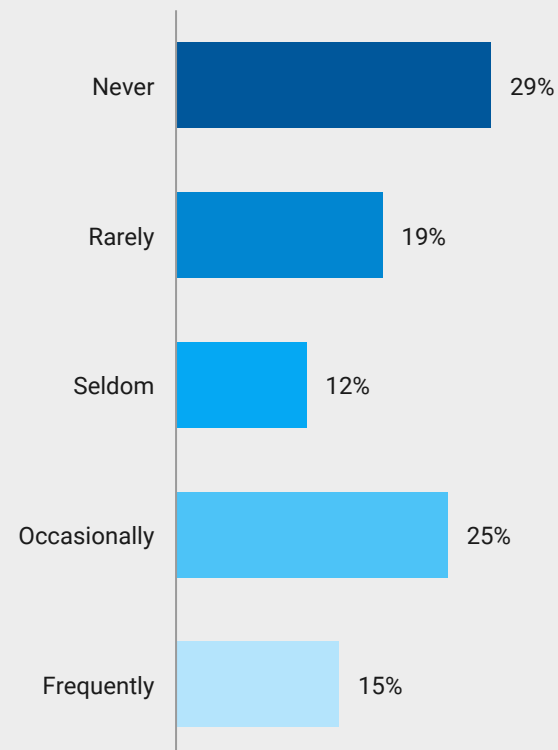


Percentage of respondents, n=333
Note: Percentages may not add up to 100% due to rounding

71%

of respondents recall using an unauthorized application on at least one occasion in order to streamline work or collaborate more easily with others. 35% identify as 'occasional' or 'frequent' users of such IT.

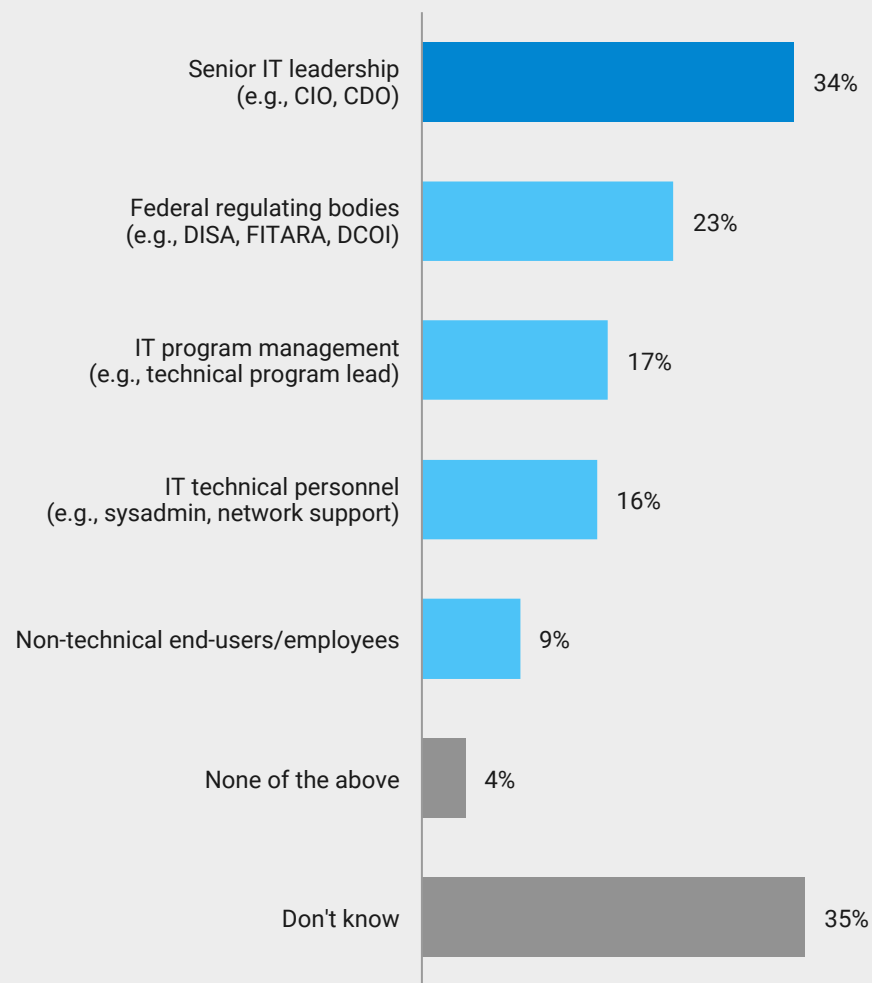
"To aid productivity and collaboration, my colleagues and I _____ use applications which fall outside the IT toolkit provided by my organization."



Percentage of respondents, n=345
Note: Percentages may not add up to 100% due to rounding

Senior IT leaders are credited with pushing IT modernization forward, but policy also exerts influence

Among the following entities listed, whom do you consider most responsible for driving IT modernization (i.e., cloud migration, data center consolidation) at your organization?



34%

of respondents attribute the bulk of IT modernization milestones to their senior IT leadership, such as Chief Information Officers and Chief Data Officers.

Percentage of respondents, n=361

Note: Percentages may not add up to 100% due to rounding

Agency leaders largely fail to convey strategic reasons for cloud migration and data center reduction

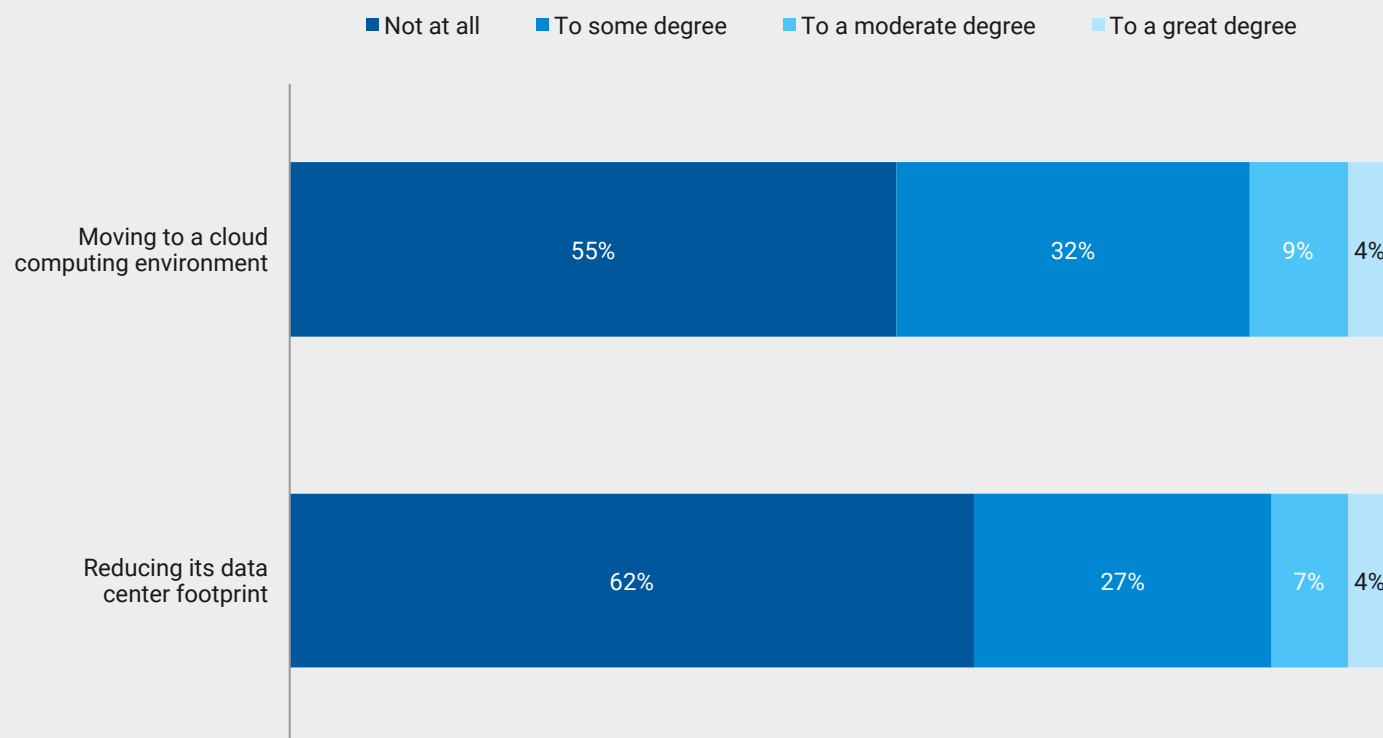
When asked to evaluate their leadership on strategic communication related to cloud migration and reducing data center footprint, a majority of respondents say no such discussion has even taken place. Conversely, just 14% of respondents say cloud strategy has been communicated to a moderate or great degree; for data center reduction, that figure drops to 11%.

Nearly a third have at least heard some degree of plans communicated, but findings overall show that strategy needs to reach a larger audience. Without sharing and justifying these plans, many might be inclined to continue working outside of governing policies and place their agencies at undue risk.

62%

of respondents say their leadership has neglected to communicate strategy related to data center optimization.

To what degree has your leadership communicated its overall strategy for _____?



Percentage of respondents, n=369 and 367, respectively
Note: Percentages may not add up to 100% due to rounding

A fourth of respondents are dissatisfied with leaders' handling of workforce changes due to migration

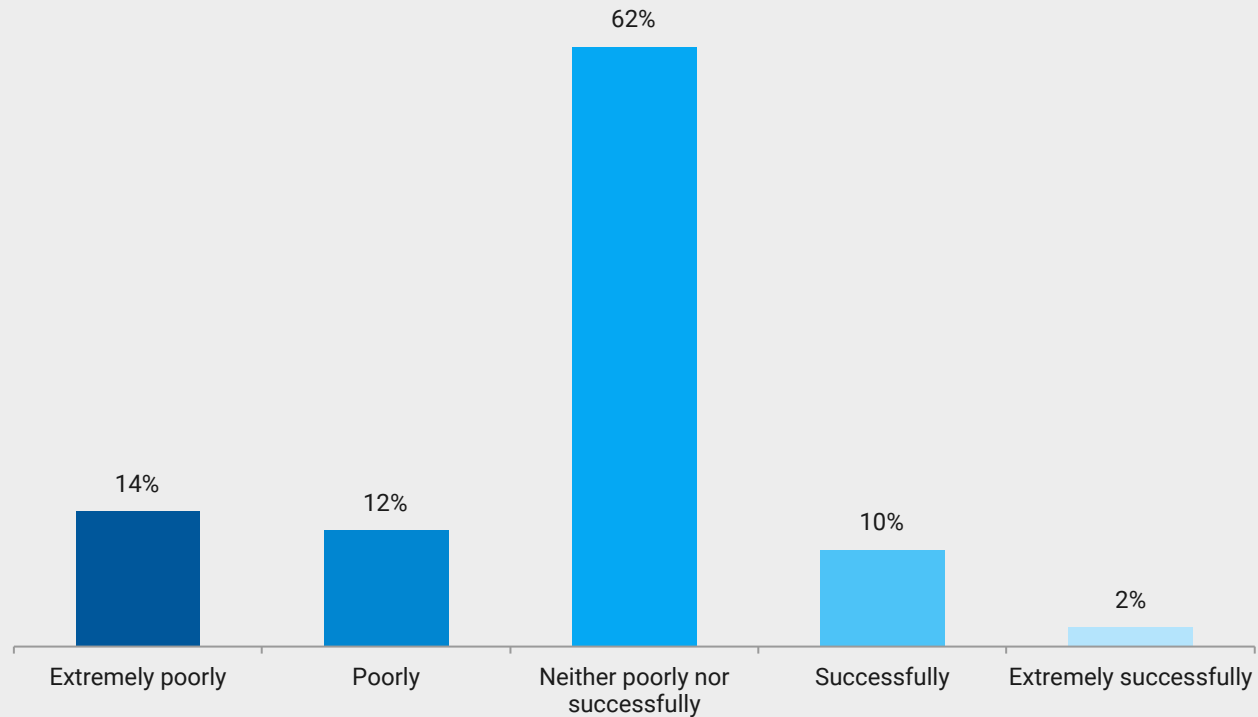
While a majority are neutral on the topic (62%), a quarter of respondents feel their leaders have underperformed when it came to handling workforce changes due to cloud migration.

Just 12%, meanwhile, feel the opposite, saying leaders have been successful or extremely successful in managing workforce developments borne out of cloud implementation.

1 in 4

respondents describes their leaders' efforts to manage cloud-influenced workforce developments as poor or extremely poor.

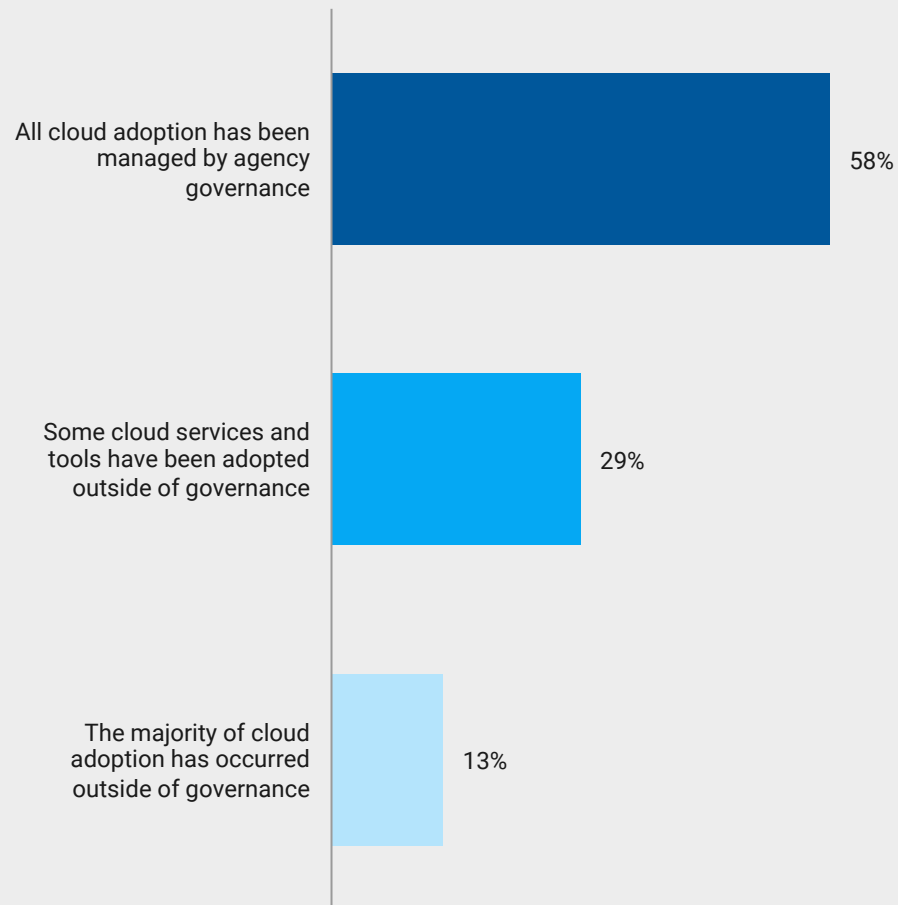
How has your agency's leadership handled workforce changes stemming from cloud migration?



Percentage of respondents, n=353
Note: Percentages may not add up to 100% due to rounding

42 percent of respondents say cloud adoption has occurred entirely or partially outside of governance

To what extent has your agency adopted cloud services and tools according to established Governance Models (i.e. operating framework guiding IT business decisions)?

**58%**

of respondents reporting knowledge of their agency's governance policy indicate that the entirety of cloud adoption has been managed under agency governance.

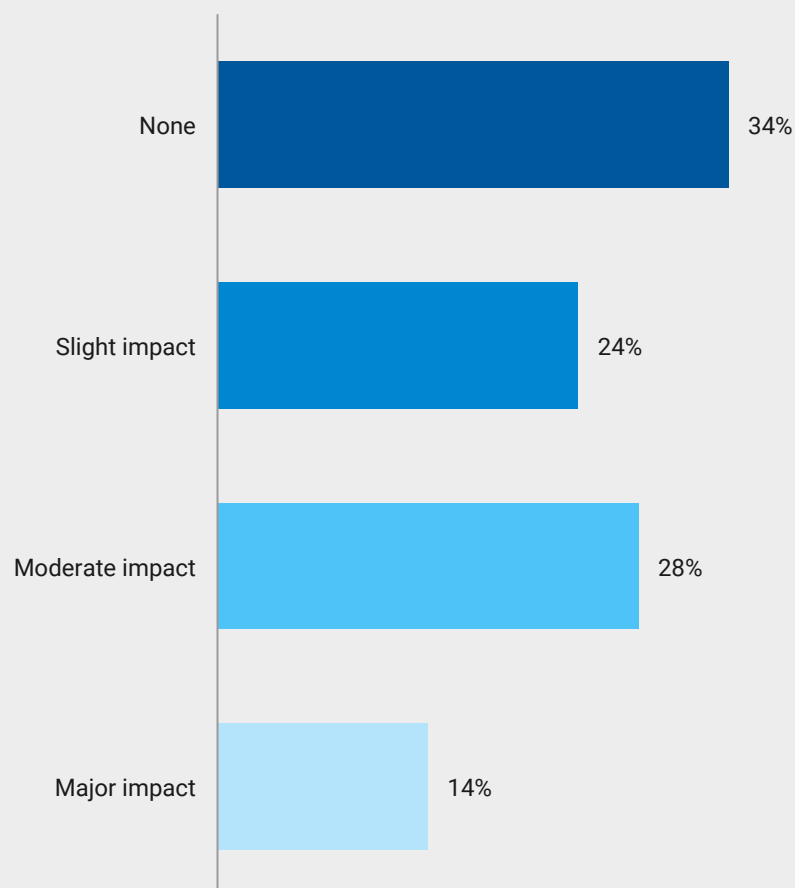
Percentage of respondents, n=97

Note: Percentages may not add up to 100% due to rounding

1 in 3 respondents says DCOI has had no impact on their agency's decision to adopt cloud

The **Data Center Optimization Initiative (DCOI)**, enacted in 2016, requires federal agencies to “develop and report on their data center strategies; transition to more efficient infrastructure (e.g., cloud services); leverage technology advancements to optimize infrastructure; and provide quality services for the public good.”

What impact has the Data Center Optimization Initiative (DCOI) had on your organization's decision to migrate to the cloud?



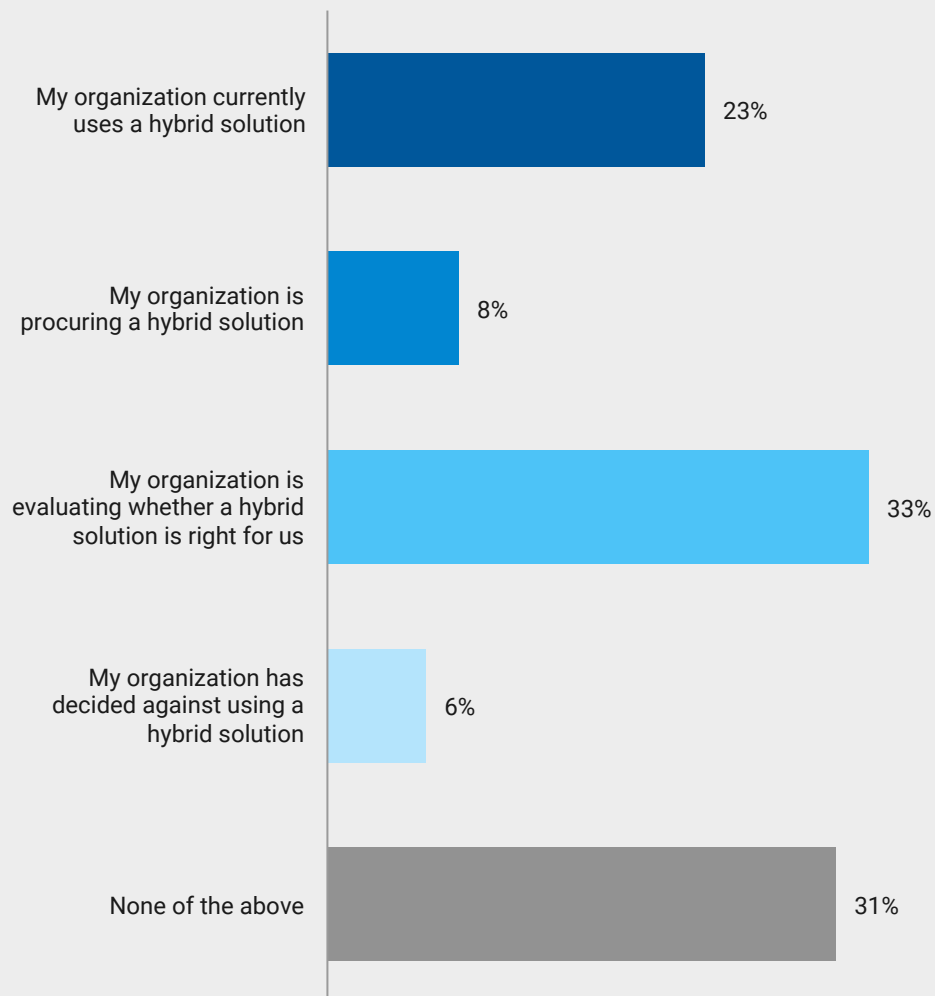
Percentage of respondents, n=139
Note: Percentages may not add up to 100% due to rounding

42%

of respondents believe DCOI has exerted either a moderate or major influence on their agency's decision to migrate to the cloud.

A quarter of respondents say hybrid cloud is currently in use, while many more are exploring the option

Which of the following best describes your organization's interest in a 'hybrid' cloud solution?



31%

of respondents with knowledge on the matter indicate their agency either currently uses a hybrid cloud or is in the process of procuring one.

Percentage of respondents, n=80

Note: Percentages may not add up to 100% due to rounding

Respondents were additionally provided with the following language when answering the question: "A hybrid cloud solution uses multiple data infrastructure solutions where at least one solution is public cloud and at least one other is private (e.g., private cloud, on-premise data center, etc.)."

Final Considerations

When considering how to mobilize employees for the cloud journey:

Make cloud progress democratic

Most research shows that the majority of cloud aversion stems not from technical anxiety or lack of expertise, but a failure to involve and educate employees on the impact that cloud can have on an organization. In this environment, IT modernization proceeds only as fast as leadership wills it. The current findings show this mentality in action:

- 59% of respondents say cloud governance is either non-existent or insubstantial
- 71% of respondents have used unauthorized IT applications on at least one occasion
- 26% of respondents believe leadership has failed to handle workforce changes resulting from cloud migration

The message to leadership is clear: by communicating the strategy and organizational impact of cloud transformation, more employees will feel invested and accountable in abiding by such a framework in their daily lives.

Treat cloud as your sandbox

There's no doubt that switching to the cloud can save agencies millions and increase overall productivity. But what often gets overlooked is cloud's ability to drive innovation.

- Just 18% of respondents said cloud's potential for innovation was driving their agency's migration
- Over half of respondents were not aware of cloud's capability to host mobile services, management tools, analytics, or as-a-service licenses

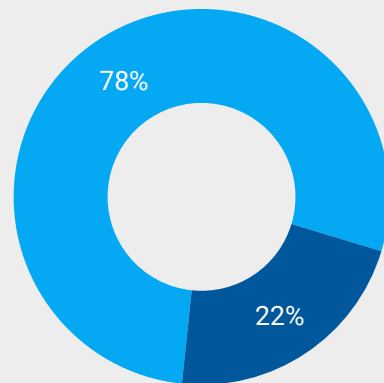
Going forward, agencies must be able to communicate and enforce strategic cloud governance in alignment with mission needs. Hybrid cloud is the perfect tool to meet that goal: with 29% of respondents already deploying (or about to deploy) hybrid cloud, and another 1 in 3 who say their agency is exploring the option, we expect this trend to continue through 2018 and beyond. By addressing governance while unleashing new capabilities, hybrid cloud gives agencies an ideal platform for driving innovative solutions to government's greatest challenges in the 21st century.

Respondent Profile

A majority of respondents are senior decision-makers in the federal government

Employment

- Federal Civilian
- Active Duty Military / DoD Civilian

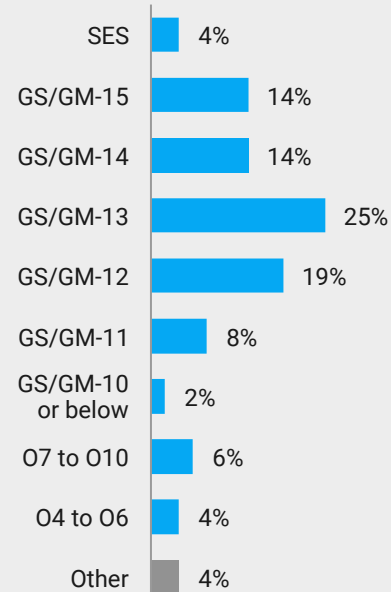


Percentage of respondents, n=555
Note: Percentages may not add up to 100% due to rounding

22%

of respondents identify as either active duty military or civilians employed by the Department of Defense.

Grade/Rank

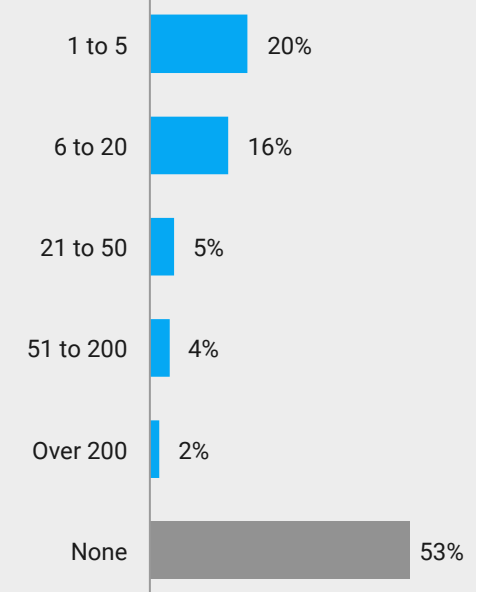


Percentage of respondents, n=346
Note: Percentages may not add up to 100% due to rounding

63%

of respondents identify as working at the GS/GM-13 level or above, which includes members of the Senior Executive Service as well as officers equivalent in ranking.

Reports/Oversees

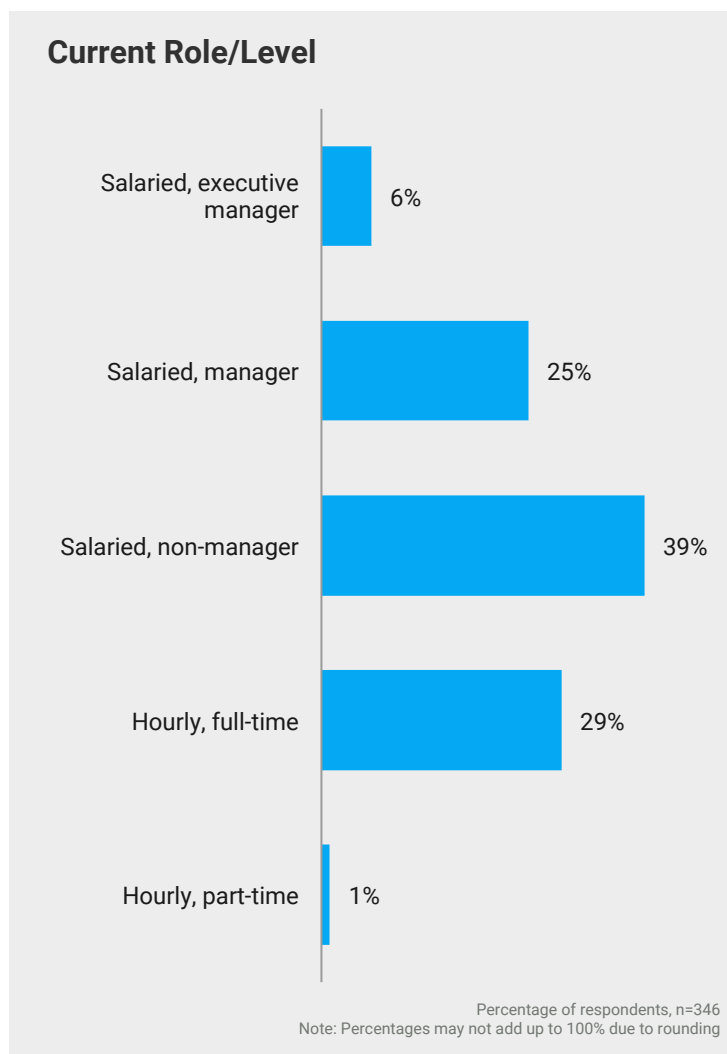


Percentage of respondents, n=338
Note: Percentages may not add up to 100% due to rounding

47%

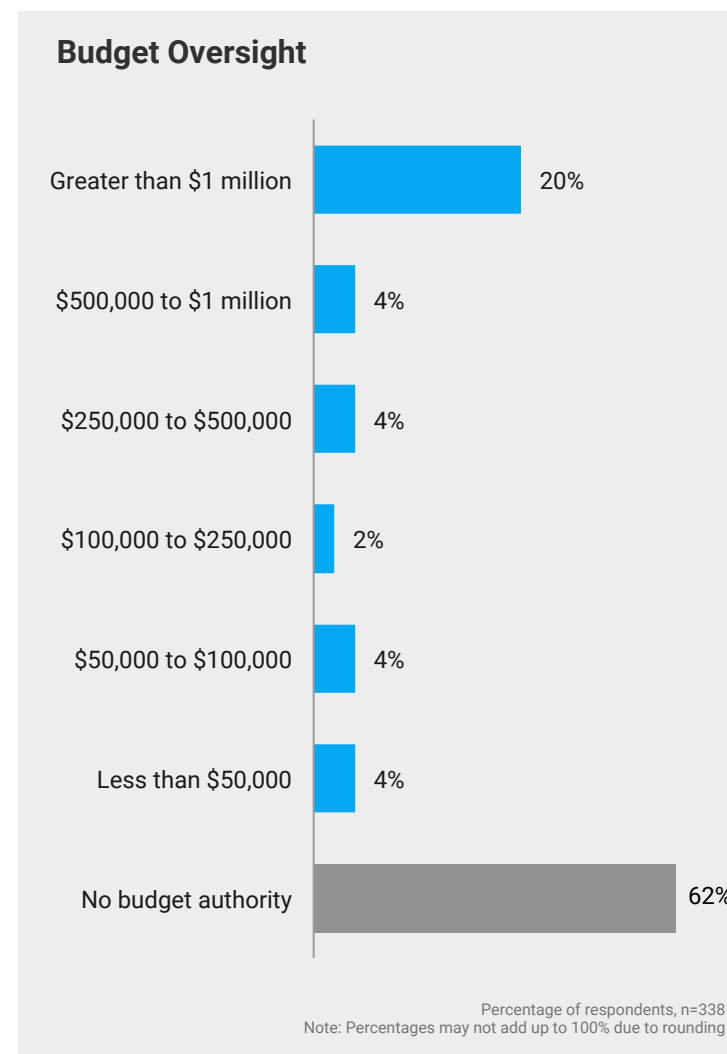
of respondents are supervisors who oversee at least one employee either directly or through direct reports.

A fifth of respondents oversee program budgets entailing spend of \$1 million or more



31%

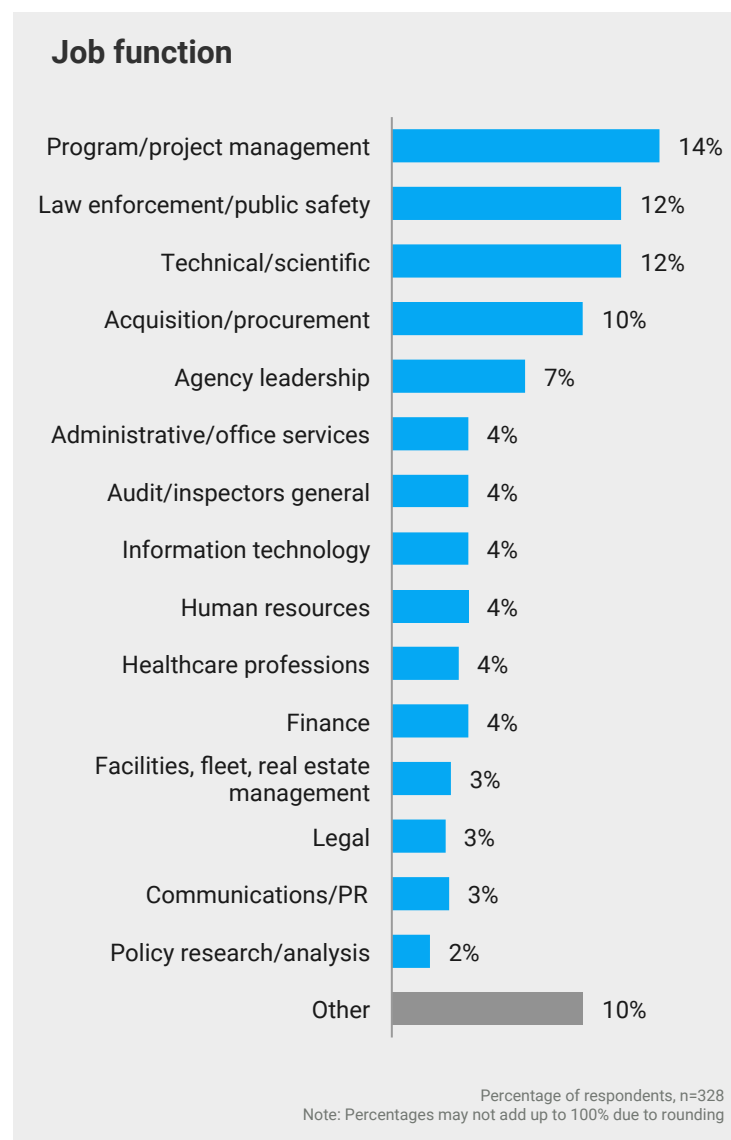
of respondents identify as salaried managers or executive managers in their organization.



1 in 5

respondents has direct oversight or control of budgets amounting to \$1 million or more. Not shown are 62% who say they have no direct control over any allocated funds.

Most widely represented are program managers, technical specialists, and purchasing authorities



Respondents were asked to choose which single response best describes their primary job function.



Departments and agencies are listed in order of frequency.

About

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