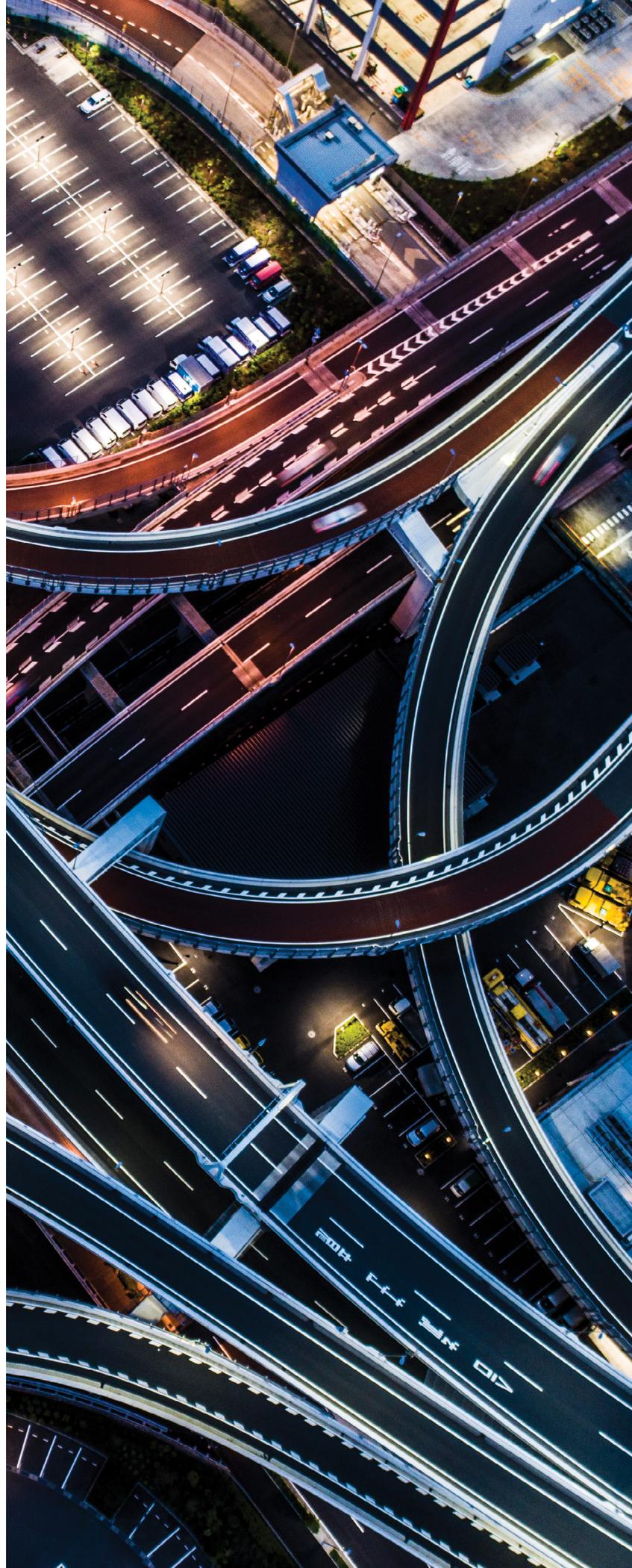


Forbesinsights

HOW
LEADERS
ARE
MANAGING
THE
COMPLEXITY
OF CLOUD
—AND HOW
YOU CAN,
TOO

IN PARTNERSHIP WITH



Introduction

The original vision of cloud was that it would be the great simplifier of enterprise technology.

Redundant infrastructure would disappear. Employees would be able to access data from everywhere. Computing silos would fall. And above all, IT costs would go down.

But the reality is that cloud has created more complexity for the enterprise. CIOs are finding that their cloud systems have fragmented, vendors have multiplied and new silos have been established—and that as a result, they're paying more for cloud than expected.

In this report, we document the costs of cloud, outline how leading firms are navigating through this complexity, and provide steps for how your organization can reclaim the promise of cloud and the efficiencies and agility that come with it.



The CIO's New Dilemma—Technology Sprawl

Digital transformation is profoundly reshaping businesses today.

Sensors and analytics are being embedded into products and production lines. The customer relationship is increasingly digital. Suppliers and customers are connected, and IT decisions and networks are dispersing from IT to other parts of the organization. All of this is leading to “technology sprawl”—a tangled web of duplicate systems, multiple operating standards, siloed data and leaky cybersecurity.

In a recent survey conducted by Forbes Insights and BMC Software, 70% of executives agree that technology decisions are increasingly being made outside of their IT function (Chart 1), and over two-thirds believe that business units are engaging their own technology vendors (Chart 2).



70%

of executives agree that technology decisions are increasingly being made **outside of their IT function**

CHART 1

IT decision making is dispersing across my company

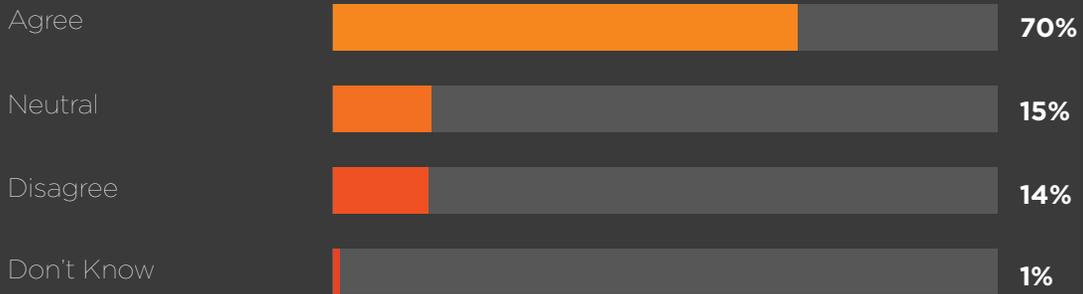
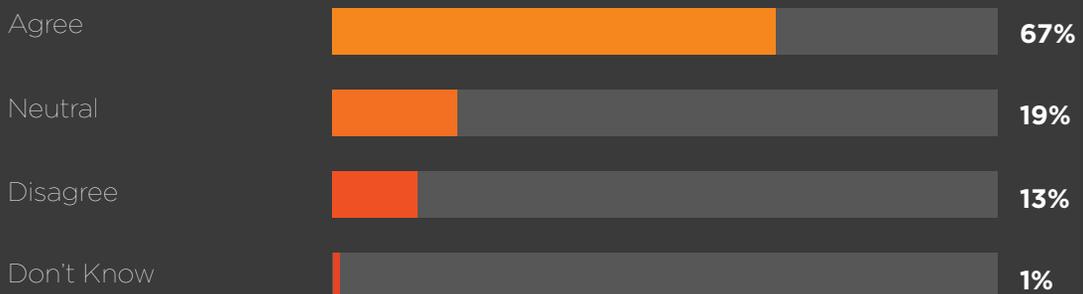


CHART 2

Non-IT functions, such as lines of business, are making more technology purchasing decisions



Cloudy And A Chance Of Complexity

Despite cloud service providers (CSPs), app developers and waves of consultants selling cloud as a single platform that can be accessed by all devices, be united under a single set of standards, and operate harmoniously across silos and business units, very few firms have a homogeneous cloud environment.

Why? Because the continuous balancing act between security, accessibility and business needs has forced companies to piece together composite networks of public cloud, private cloud, hybrid mixes and on-premise computing.

According to the Forbes Insights research, companies have, on average, 17 major cloud providers—and these are just the ones IT knows about (Chart 3). Each provider can present unique service levels, conflicting standards, unconnected security solutions and different pricing. Collectively, they can present duplication and redundancy.

It should be noted that the vendors have hardly been passive in the fragmentation of cloud. A majority of our respondents report that cloud providers are de facto members of their cloud decision-making team (Chart 4). This insider status puts them in a position to upsell further services and more complex cloud products.

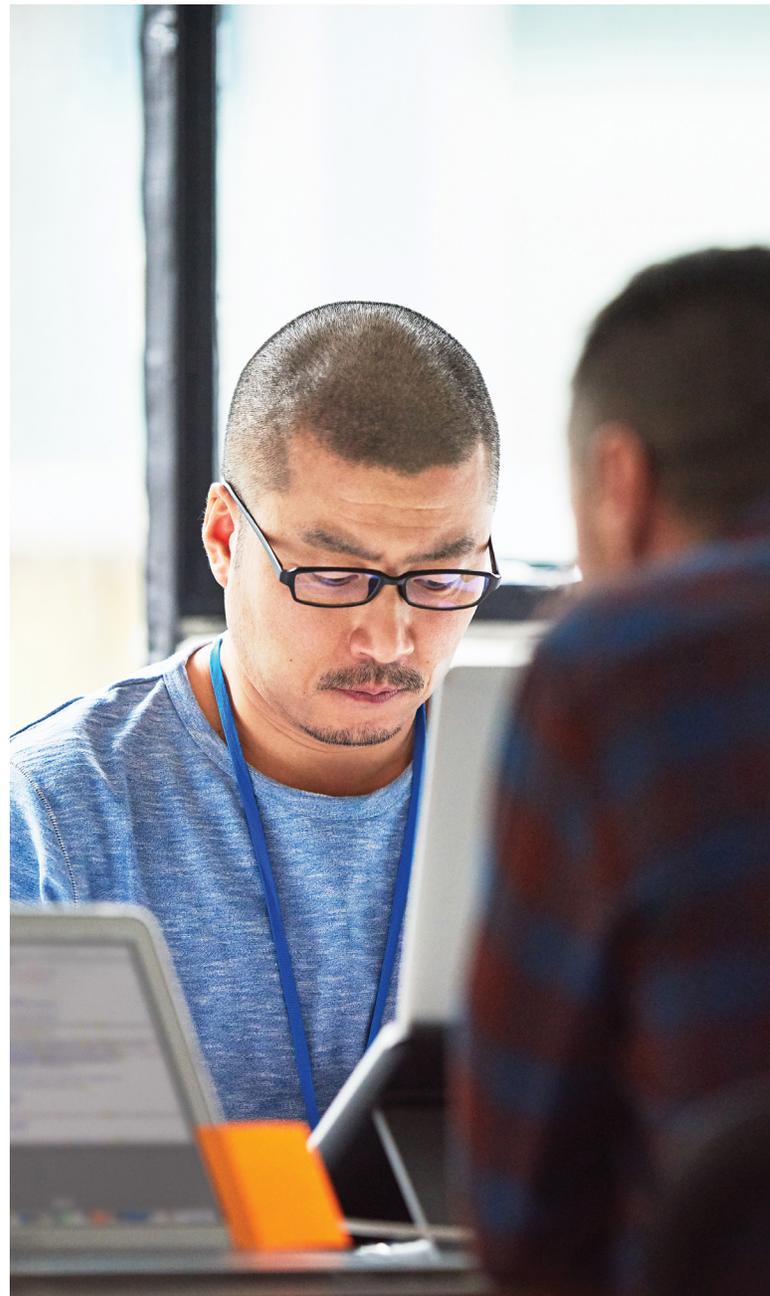


CHART 3

On average, how many of the following cloud providers do you use?



CHART 4

How important are the following entities in managing your company's cloud capabilities?

	Not important	Neutral	Important
External cloud service providers (CSPs)	7%	41%	52%
Managed cloud service providers (MSPs)	8%	42%	50%
Cloud architects	8%	40%	51%
Security specialists	6%	40%	55%

Note: Does not total 100% due to rounding

The Price Of Complexity

This cloud complexity is negating the very reasons—cost reduction, rationalizing of infrastructure, simplifying the supplier base—that companies adopted cloud in the first place.

An example is the objective of simplifying the number of network vendors—and companies now finding that they have too many cloud vendors (Chart 5).

One of the most long-standing justifications for cloud is that it is asset-efficient—that dozens of servers would not be lying unused outside of peak loads. The irony of the fragmentation of cloud is that customers are paying for excess computing capacity. Over half, 51%, of respondents agree that their company has duplicate cloud services that they don't use; only one in four believe they do not (Chart 6).

Perhaps the greatest challenge is not in the IT program itself, but rather the inefficiencies that mismanaged cloud can create in the workplace. Separate standards and isolated data can prevent collaboration, particularly across departments. Of our 505 respondents, 70% believe that fragmented cloud is affecting the efficiency and cost-effectiveness of their operations (Chart 7).

Though the most promoted benefit of cloud has been cost savings, the reality is that mismanaged cloud drives up costs in two ways.

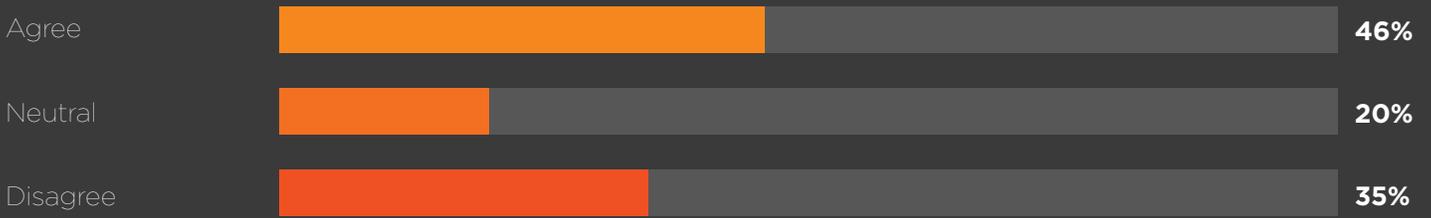


The first is overpayment for duplicative services, including subscription costs and fees. The second is that because spending is fragmented across multiple vendors, companies are unable to leverage bulk pricing. As a result, more than half, 51%, of our respondents believe they are paying too much for the cloud services they're receiving; only 21% believe they are paying the right amount (Chart 8).

There is no doubt cloud has huge benefits. But the irony is that many of the benefits—lower costs, high efficiency in computing power, consolidation of vendors—can't be realized in an unmanaged cloud environment. Keep reading to learn how technology leaders are achieving the full benefits of their cloud programs.

CHART 5

Our company has too many cloud service providers



Note: Does not total 100% due to rounding

CHART 6

Our company has excessive duplication of cloud services

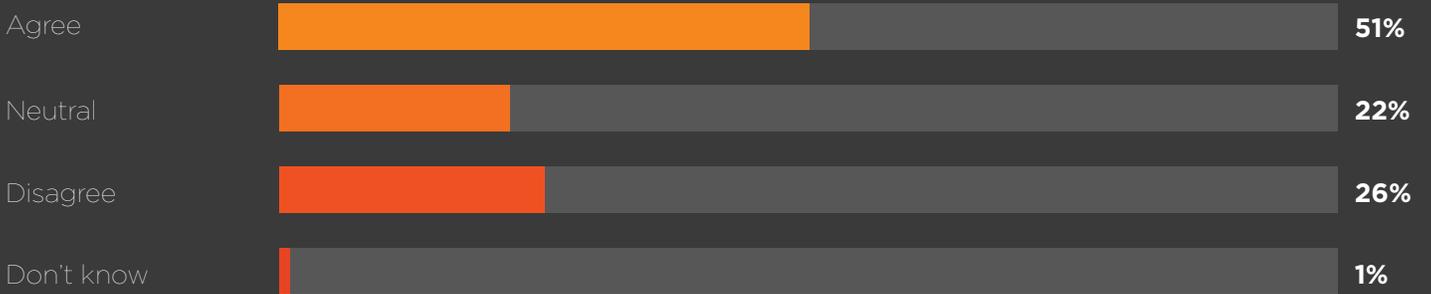


CHART 7

Our company could save money through more efficient use of cloud services

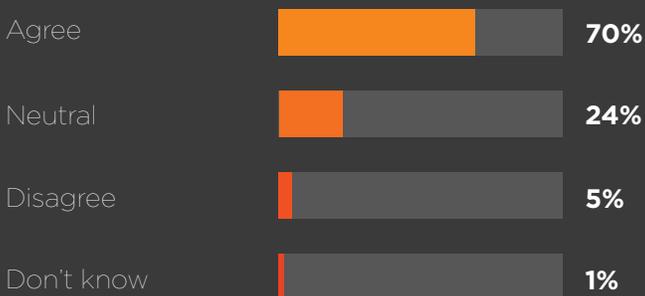
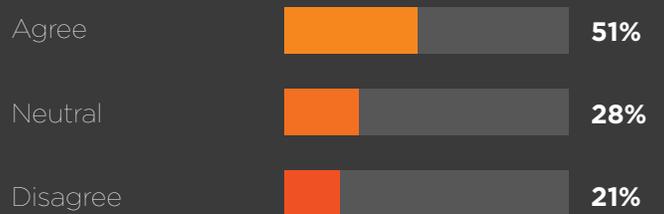


CHART 8

Our company pays prices that are too high for its cloud services



Eight Lessons From Cloud Leaders

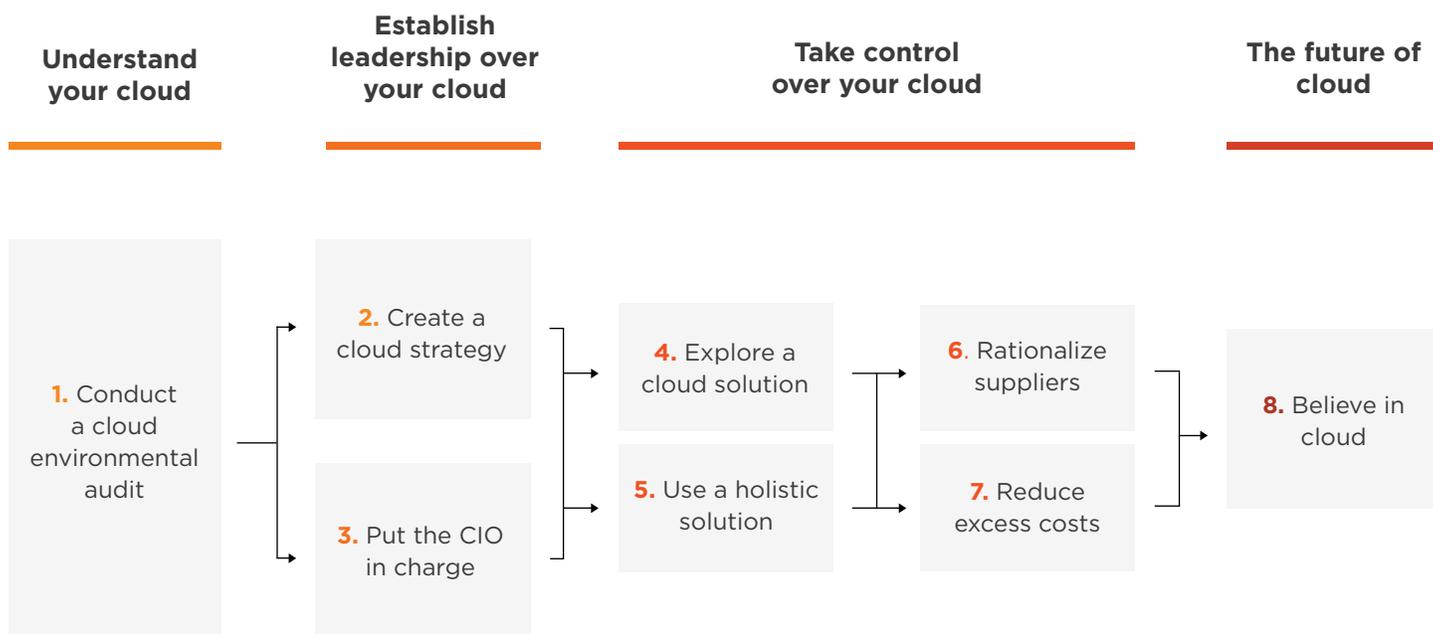
Every technology wave, from the early internet to edge computing, has its pioneers. The same goes for cloud.

Leaders in the Forbes Insights survey are defined as those who indicated they were well ahead of their peers in their deployment and use of cloud or one of the cloud leaders in their industry.

By aggregating their challenges, decisions and conclusions, we've identified eight key steps you can take to reclaim the promise of cloud.

CLOUD MANAGEMENT ROAD MAP

Eight leading practices for the next generation of cloud



1. Conduct an audit of your cloud environment

A defining characteristic of leaders from the Forbes Insights survey is that they know and understand their current cloud environment. By substantial margins, they understand their network structure, their cybersecurity solutions and their vendor agreements far better than their counterparts.

As a first step in gaining control of cloud, leading firms are proactively baselining current cloud structure—vendors, users, standards, networks, etc.—as the foundation for further action. To do the same, start by putting in a formal request with your vendors to list out all the current agreements and services being provided to your company.

2. Create and operate within a cloud strategy

When it comes to their cloud strategy, leaders have a plan, and followers do not. Fifty percent of leading firms say they have a clear migration plan that factors in costs, business needs and cloud resources, while only 28% of all other companies operate under such a strategy.

Cloud is a strategic asset. It is a new way of doing business that demands everything from employee training to rethinking revenue models to deep integration into the business. This kind of change merits more than a project plan—it demands a full-on strategy with a vision, a deployment plan and measures of success.

3. Put the CIO in charge

Cloud should not be treated as another IT program and be managed by junior staff, something leading companies understand. While 39% of leaders put their CIO in charge of cloud, only 24% of less successful companies—those who say they are behind or far behind their peers when it comes to their deployment and use of cloud—do so.

To be effective, cloud must span siloed departments and lines of business. It is global and typically requires bringing in third parties—suppliers, customer, contractors—under its umbrella. This span of control demands a senior leader with technical expertise to break down barriers and build common standards across the enterprise. For most organizations, this senior leader is the CIO.

4. Automate your cloud management with a cloud solution

Cloud management software is a solution that provides cost, security, governance and performance management functions over a multi-cloud environment. Effectively, it consolidates information across multiple cloud deployments to enable proactive cloud management. A very large majority—more than eight in 10—of the leading companies use an enterprise-wide cloud management solution.

Cloud management tools not only automate and accelerate tasks such as spend analysis, migration planning and security incident management, but they can also troubleshoot anomalies as they arise.

5. Don't attack the problem piecemeal—use a bundled, multi-capability solution

Some cloud management programs are collections of disparate solutions that have been collected over time. Leading practitioners are more likely than followers to want bundled solutions (Chart 9). Their reasoning: Effective cloud management requires implementation across multiple cloud environments. Attacking a fragmented problem with a fragmented solution only compounds the problem.



CHART 9

Of the following solutions, which would you want included in a bundled cloud management solution?

	Leaders	Followers
IT service management excellence	63%	54%
Multi-cloud management services	59%	31%
IT optimization	59%	45%
Automation and development ops	50%	27%
Migration planning	35%	41%

6. Rationalize your suppliers

As technology has dispersed across organizations, so has the acquisition of multiple cloud vendors. These different solutions can have a strong impact on operations—sequestering data, stalling integration and creating leaky cybersecurity defenses. Leading companies have leveraged their internal audits, CIO-level controls and cloud management solutions to consolidate vendors and reduce service duplication.

7. Reduce excess spend on cloud

Not only does rationalizing suppliers make cross-cloud integration easier, but it also puts leading companies in a position to reduce total spend on cloud. Just one-fifth of leaders believe they are paying too much for cloud services, versus almost a third of their lagging counterparts. This reduced spending comes from the elimination of duplicative services (and the costs they entail) as well as the ability to leverage volume discounts with higher service levels by consolidating vendors.

8. Believe in cloud

The executives we surveyed were clear that there are challenges in cloud deployment, from siloed data to excessive costs. But the research also shows they have a strong belief in what cloud can do for their organization. When asked how satisfied they are with their enterprise cloud program, 80% overall said they are either very satisfied or satisfied. We also asked our respondents how important cloud would be to the future of their company—both leaders and followers agreed that cloud would provide a competitive edge over the next few years.

The realities of cloud have proved to be more challenging than expected. While cloud was promoted as the great simplifier—a new computing model that would rationalize infrastructure, provide ready access for the workforce, reduce IT tasks and lower costs—the irony is that its very success has created the tangled, complex set of networks that are challenging almost every enterprise today.

By following this road map, you can reclaim the original promise of cloud and all the benefits that come with it.



Methodology

The research in this report is based on a Forbes Insights survey of 505 global executives who are responsible for their company's cloud computing programs.

Sixty percent of respondents were in the C-suite, and all came from companies with over \$500 million in revenues. The survey was conducted in February and March 2019.



60%

of respondents were in the **C-suite**

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