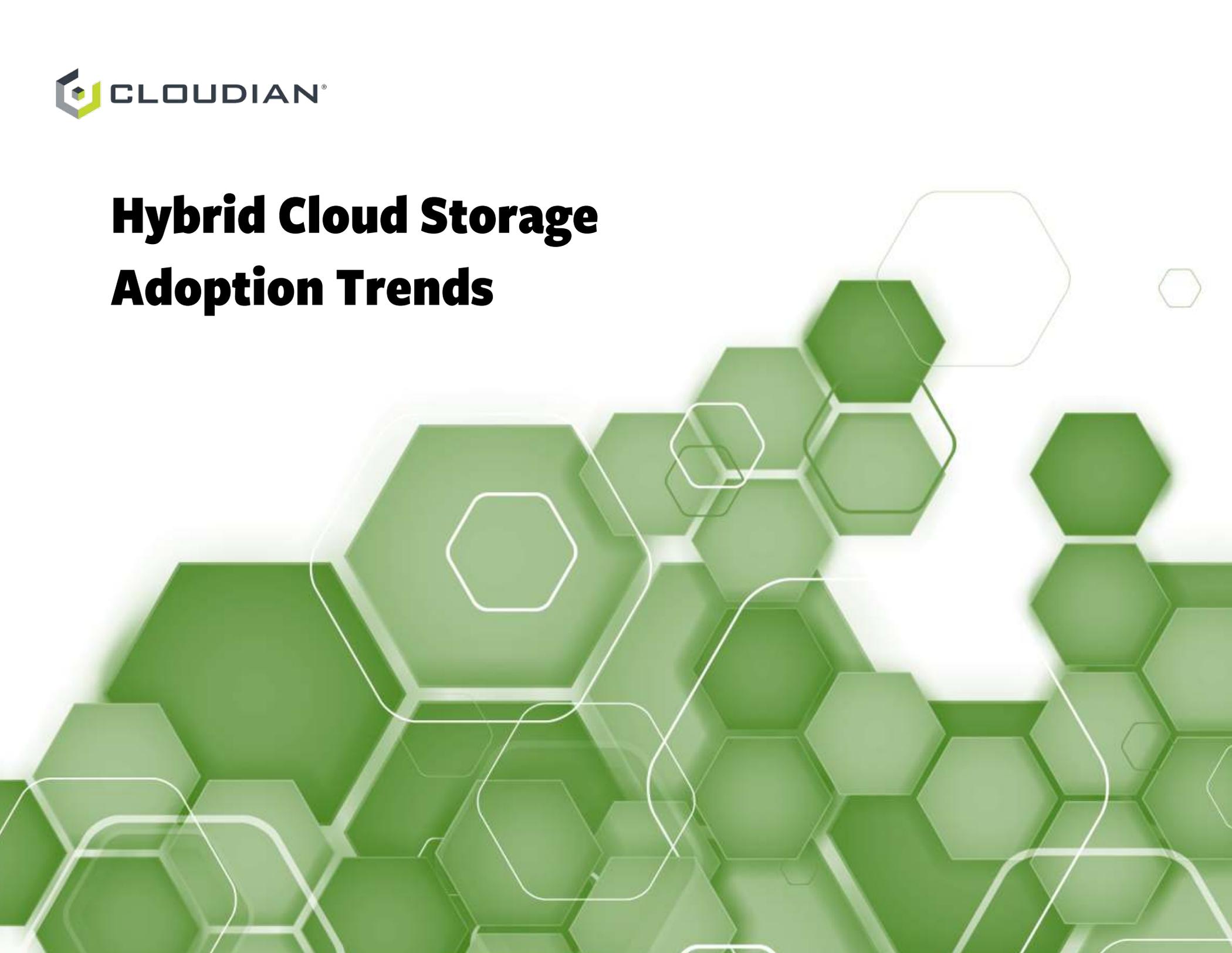


# **Hybrid Cloud Storage Adoption Trends**



# Introduction

In November of 2016, Cloudian surveyed IT decision makers in the US and the UK to better understand the state of cloud storage, particularly as it relates to people's concerns around the technology. Our short survey, for which 409 people responded, consisted of sixteen questions, the results of which are shared in this report.

## Respondent Company Size (N=409)

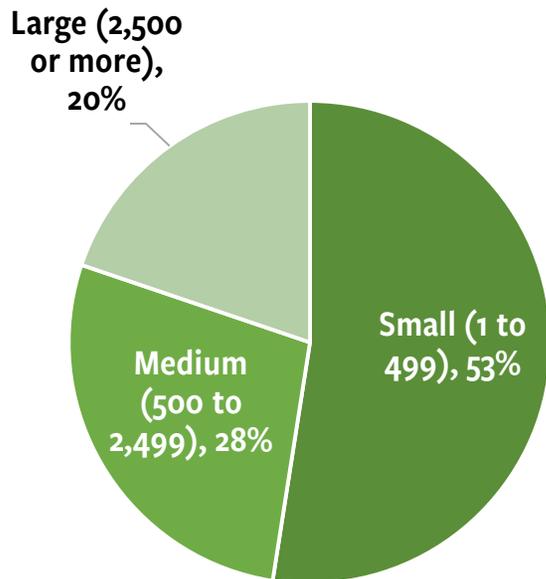


Figure 2: Respondent company size

There are a number of high level and important findings that came from these efforts:

- Cost and security are, by far, *the* key drivers in decisions around whether to adopt cloud-based storage technologies. In some cases, the answer is to forgo the public cloud and focus instead on building cloud-like storage architectures in the local data center.
- For many, thanks to regulatory and internal policy requirements, retaining data in the local data center is far more palatable than moving it into the public cloud.
- There remains confusion in the market around specific technologies, leading to a both challenges and opportunities for vendors in this space.

## Respondent Location (N=409)

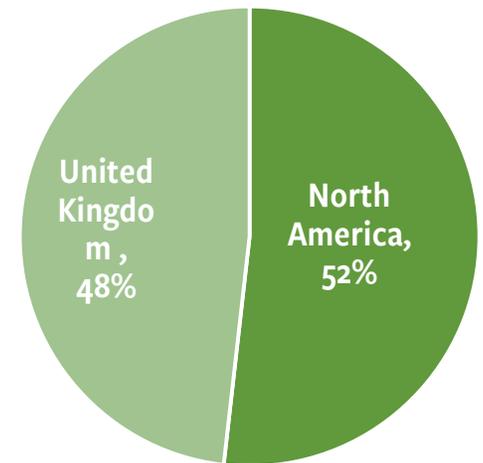


Figure 1: Respondent location

# Current and Planned Cloud Storage Use in Respondent Organizations

When the audience was asked about their general use of cloud storage solutions, 87% responded that they do use such services. Only 13% said that they don't use any cloud storage services of any kind.

At first glance, the 87% figure would seem to be incredibly high as it would imply that the entire enterprise IT industry has suddenly jumped into this service. This, however, is not the case. In Figure 4, it becomes clear that people equate all kinds of common services with *cloud storage*. Almost half of respondents say that they are using a file synchronization and sharing service such as Dropbox or OneDrive, which they equate with cloud storage, which, to be fair, it is. Another 40% of respondents

## What type of cloud storage services, if any, are currently in use in your organization? (N=358)

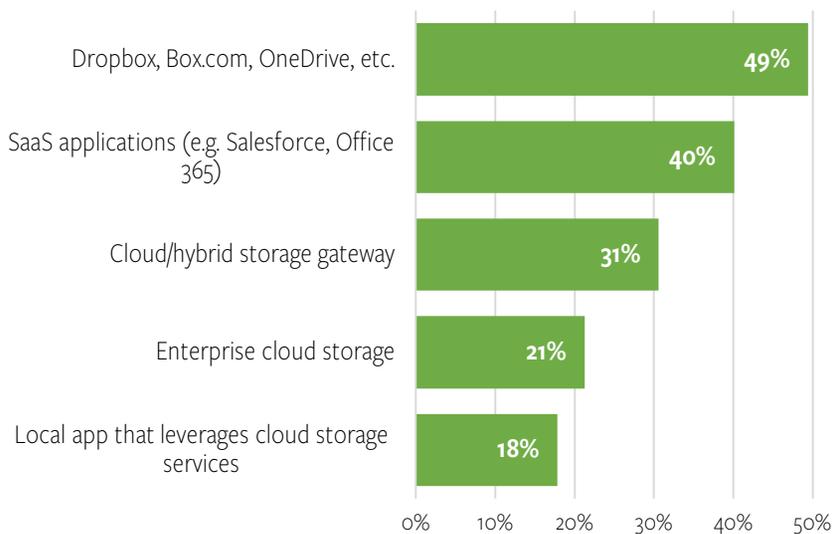


Figure 4: A breakdown of the kinds of cloud storage in use

are using storage that exists in some of kind software-as-a-service (SaaS) application such as Salesforce or Office 365 (40%). Less than one-third of respondents are using what has become known as a *cloud storage gateway* (31%), which combines a local appliance with cloud-based storage. Even fewer (21%) are using enterprise cloud storage. Finally, only 18% are using a local application that leverages cloud storage in some way.

The key takeaway here is that organizations are figuring out how to leverage cloud storage for specific applications, such as file sharing, email, and the like, but they continue to struggle when it comes to more general purpose storage needs as it relates to cloud.

## What type of cloud storage services, if any, are currently in use in your organization? (N=409)

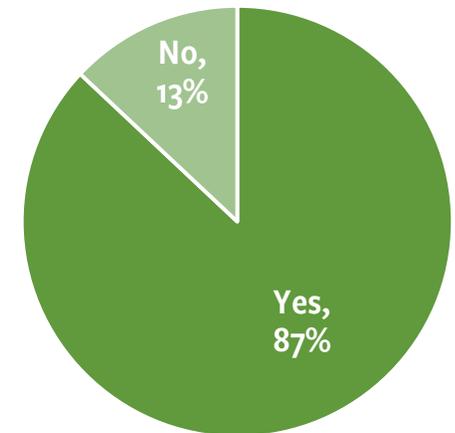
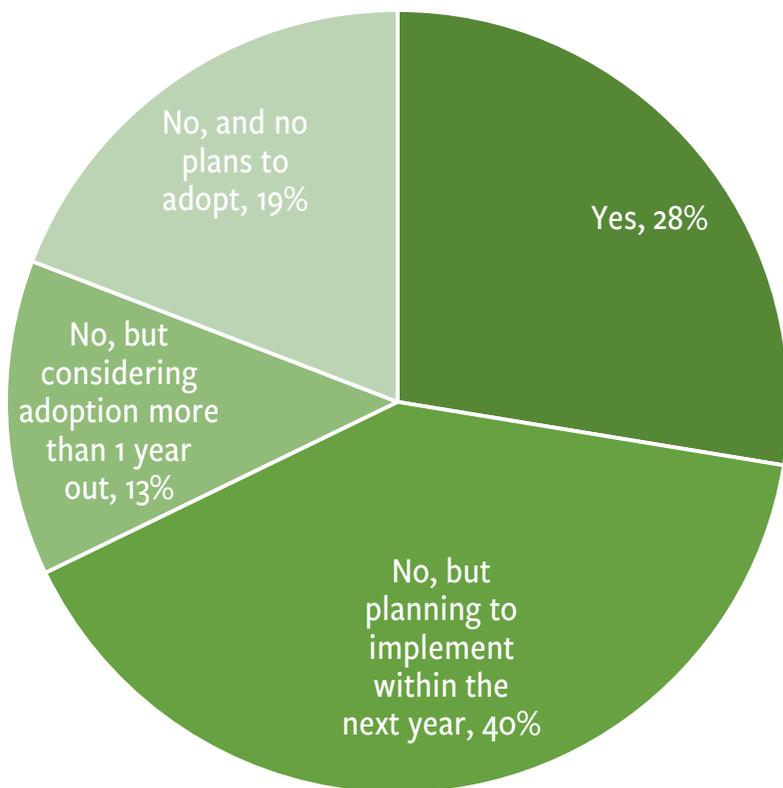


Figure 3: Respondents leveraging cloud storage services

**Have you deployed a hybrid cloud storage model to support local applications? (N=261)**



The vast majority of respondents have either deployed (28%) some type of hybrid cloud storage or plan to deploy such a system at some point in the future. 40% plan to do so within a year with 13% planning to do so more than a year out. Just 19% of respondent organizations say that they have no plans at all to adopt a hybrid cloud storage solution.

*Figure 5: Hybrid cloud storage deployment plans*

For the purposes of our survey, we wanted to better understand when respondents intend to begin deploying cloud-based storage to support local applications. Most plan to deploy such storage within the next year, but, as was the case above, the term cloud storage may have meant different things to different people. As such, it's interesting to consider potential direction based on organizational attributes.

Figure 6 demonstrates this finding. This finding isn't that surprising. Larger organizations tend to have several characteristics that smaller ones do not. First, they typically have more IT staff and, thus, more opportunities to jump into what might be considered new, cutting-edge, or less well-understood technologies. Second, they often have more complex needs than smaller companies and, thus, need a wider variety of technologies at their disposal.

### When do you intend to deploy cloud storage to support specific applications running on premises? (N=336)

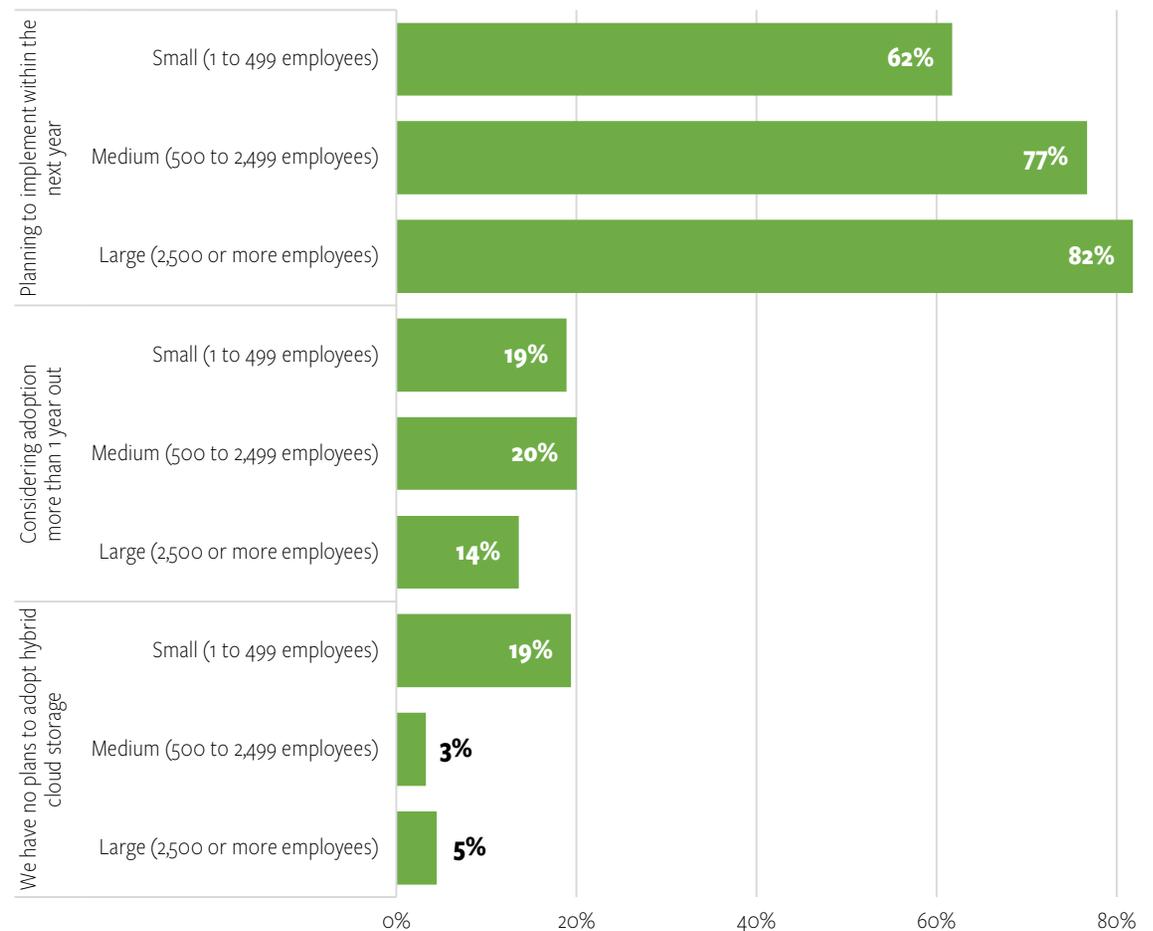


Figure 6: Cloud storage deployment plans by company size

## What applications are you using or would you like to use with an enterprise cloud storage solution? (N=89)

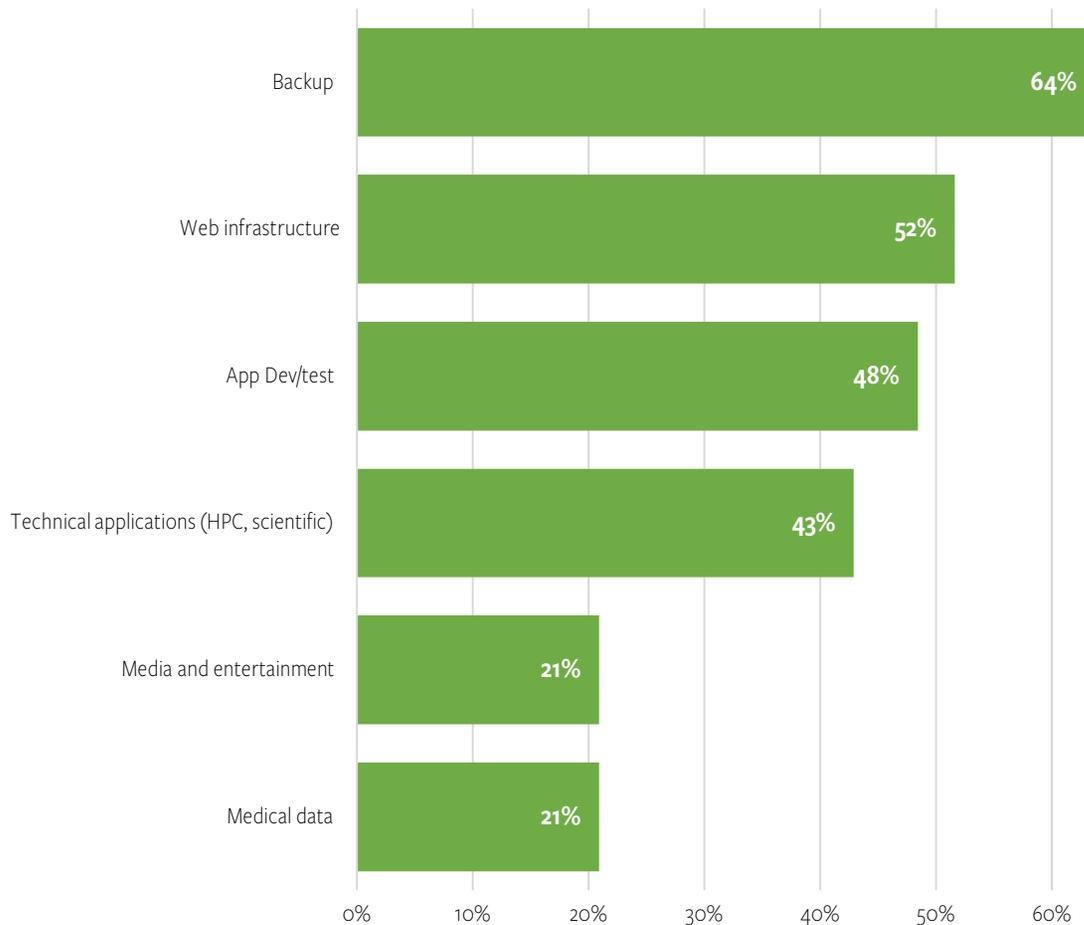
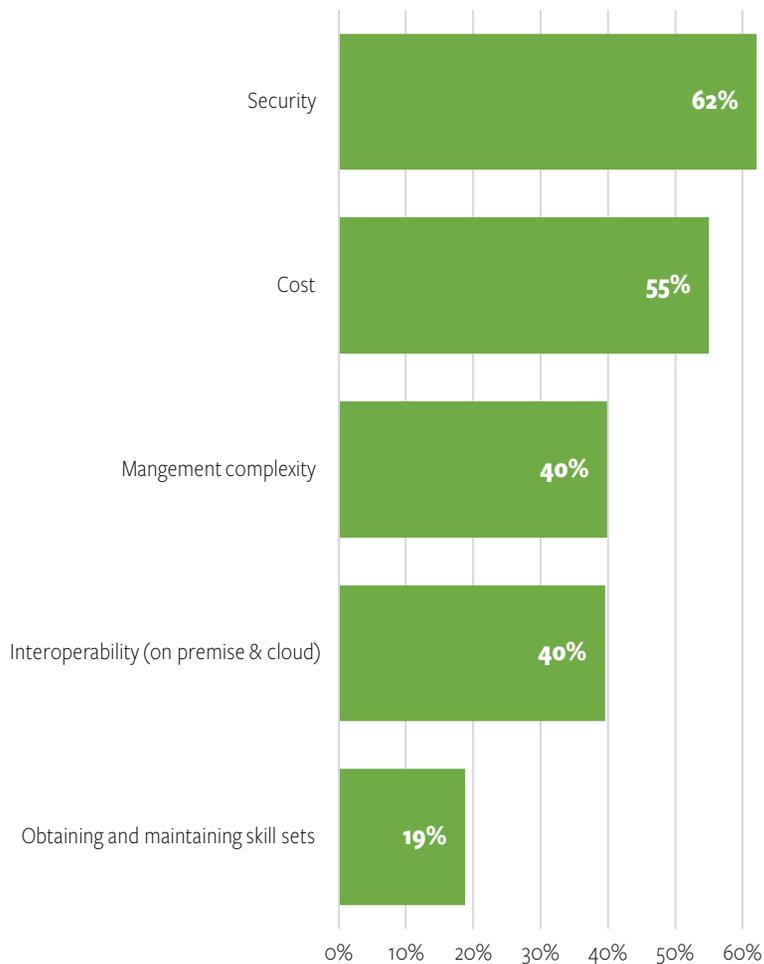


Figure 7: Enterprise cloud storage application interest

Organizations are looking to hybrid cloud storage to support a variety of workloads. Data backup is the most popular use case, with 64% of respondents reporting deployment or plans to deploy. Web infrastructure (52%), application dev/test (48%) and technical applications (43%) are also driving the adoption of hybrid cloud storage products and services.

# Security and Cost are Paramount Concerns

## What are your top concerns around hybrid cloud storage adoption? (N=384)



With the constant stream of news around data loss and other security breaches, it's no wonder that respondents cite security as their top concern when it comes to cloud storage. Further, as IT budgets continue to get squeezed and organizations seek new ways to leverage IT, the cost of new solutions and the cost to maintain existing services is also a top concern. In multiple ways, respondents identified budget as a key concern around and a key driver of interest—or lack thereof—in cloud-based storage solutions. The survey requested feedback from respondents in two different ways and both security and cost track together.

First, respondents were asked to indicate their top concerns around adopting hybrid cloud storage solutions. With 62% of respondents agreeing, security was identified as the top concern, with the cost of a solution coming in second at 55%. There were other identified concerns as well, but none were considered nearly as serious as security and cost, although, considered in the aggregate, the remaining characteristics could be considered in a number of different ways. For example, management complexity, solution interoperability, and cloud storage skill sets could be considered as roadblocks in that the wrong solution can add general complexity to the environment. In an era in which solution simplicity is considered a key need, any provider making cloud or cloud-like storage solutions available to the market needs to make sure that they're easier to use and work well with other products on the market.

Figure 8: Respondent concerns around adopting hybrid cloud storage

**Do you have data that cannot be migrated to the public cloud? (N=409)**

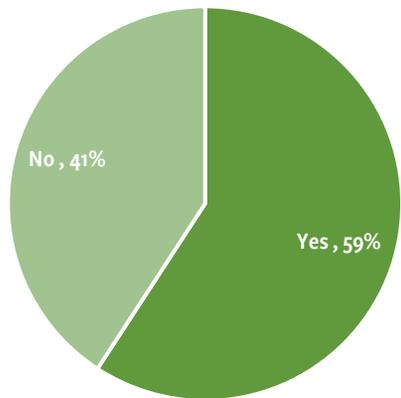


Figure 9: Percentage of respondents saying that they have data that cannot be migrated to the public cloud

Expanding on the security concern, respondents were asked to indicate whether they have data that cannot be migrated to the public cloud. In other words, does the respondent have data that, for whatever reason, must stay local? 59% of respondents indicate that they do, in fact, have data that can't move to the public cloud.

For the 59% of respondents that indicated that they have data that cannot move to the public cloud, on average, 47% of their data needs to stay local and cannot migrate to a public cloud environment. However, that doesn't mean that these companies don't need or want solutions that enable cloud-like scalability. In fact, more and more organizations need storage products that enable easy and unlimited scalability, which means that local, on-premises object storage is an increasingly important segment of the storage market.

**Approximately what percent of your data cannot be migrated to the public cloud? (N=239)**

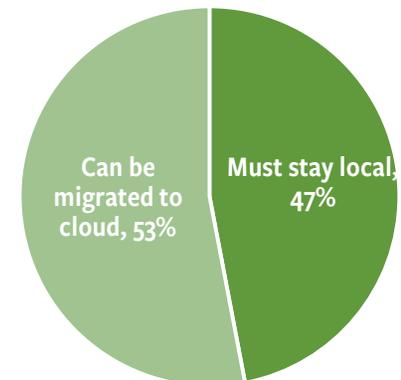
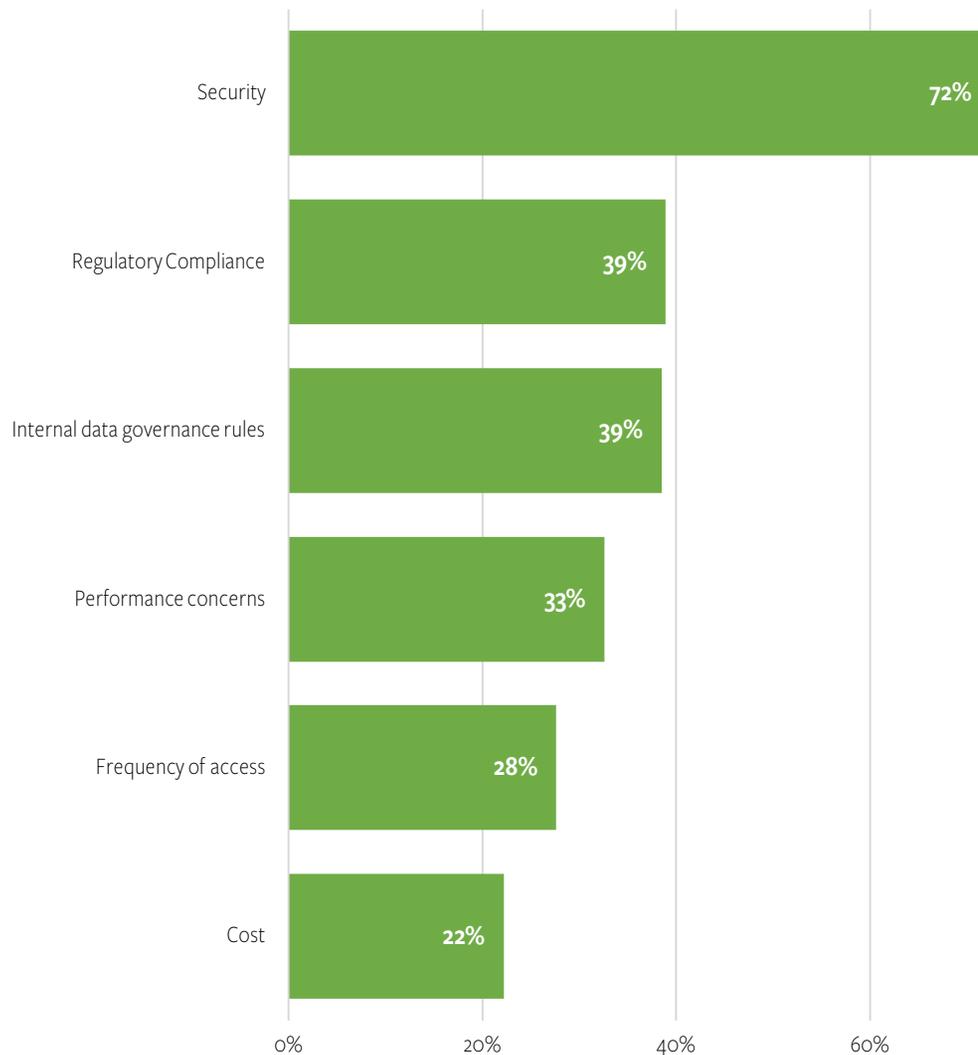


Figure 10: The amount of data that companies have that cannot be migrated to the public cloud

### What are the top 3 reasons you need to keep this data on premises? (N=239)



To understand hesitancy around moving data to the public cloud, respondents were asked to provide their top three reasons for keeping data local (Figure 9). At first glance, it would appear that security and regulatory compliance and internal data governance rules are the top reasons for doing so. However, there's a bit more nuance to the results.

It's clear that 72% of respondents believe that their data is more secure in a local data center than in the cloud. At the bottom, 22% of respondents indicate that cost is a reason to keep data on premises. It can be easily construed that this 22% of people believe that it's less expensive to keep data local than it is to place it in the cloud. That can also be interpreted as saying that 78% believe that it would be more expensive to move data into the cloud. With that in mind, security and cost remain the top two concerns from respondents. And, tied at 39% each, worries about regulatory compliance and internal data governance rules—also generally considered as a part of a risk management or security structure—are also on people's minds.

Figure 11: Primary reasons that companies need to keep data on premises



### What types of data are you unable to migrate to the public cloud? (N=239)

The survey also requested respondents to indicate the type of data that cannot be migrated to the public cloud. As Figure 12 demonstrates, 67% of respondents indicate that they will not move financial data into the cloud. In second place were customer records, with 47% indicating reluctance to move customer records into the cloud. In what was something of a surprise, just 22% felt that healthcare records had to stay local, although initiatives around healthcare reform and moving to electronic health records are forcing more collaboration regarding this kind of data. Increased collaboration is one of the benefits that people see in the public cloud.

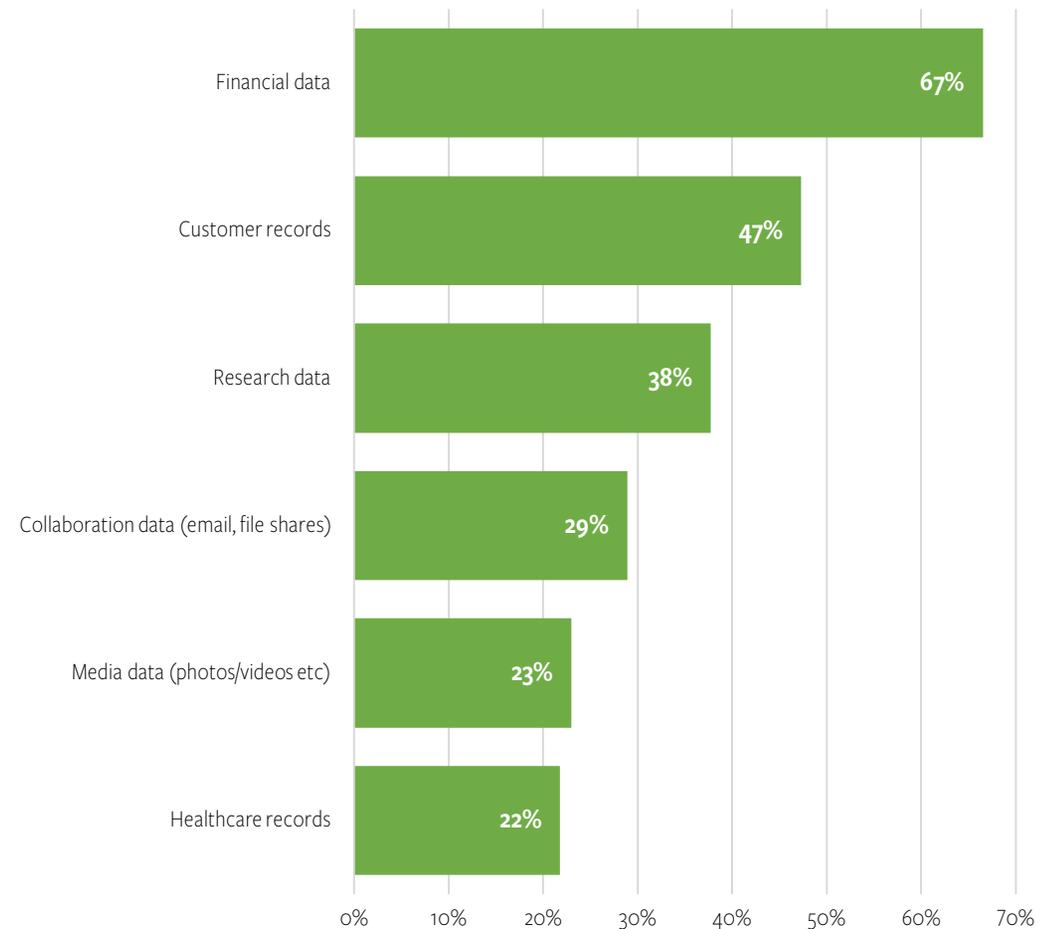


Figure 12: The types of data that respondents cannot or will not migrate to the public

## Uncertainty and Confusion

### What type of public cloud storage interfaces are you most likely to select? (N=25)

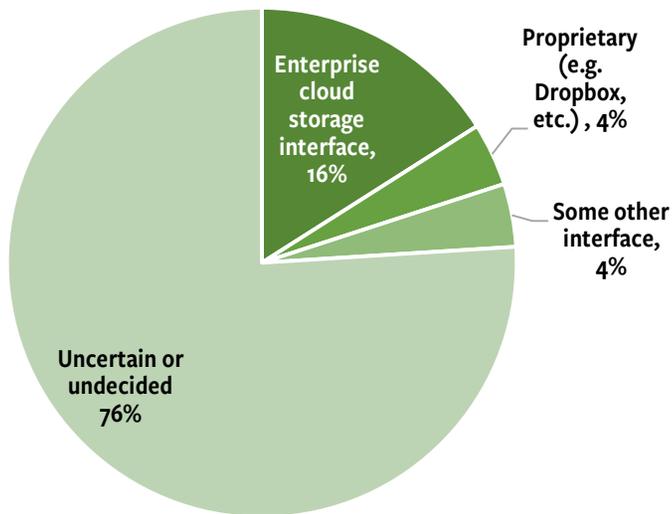


Figure 13: Cloud storage interface selection option

There is an additional point that is important to understand. Based on the responses received, there appears to be continuing confusion around cloud storage and the various technologies that underpin it. There is a need for far more education around cloud storage technologies to help people understand the options at their disposal. Those few respondents that indicated that they have no cloud storage services were asked about the type of cloud storage interface they would select. Although the sample size is small, the result was overwhelming that the respondent simply did not know what they would choose. Only 24% could say with any certainty the direction they would go. Had the results been a little less overpowering, the small sample size would have more weight, but the fact is that respondents simply do not know the direction they plan to take as it pertains to cloud storage interfaces.

### Summary

Security, cost and confusion. These are the three primary issues that vendors in the cloud or cloud-like storage space must address with the potential customer base. From worries that moving to the public cloud will increase costs both directly and indirectly—such as through the need for additional staff skills and increased complexity—to the worry that moving data out of the local data center will introduce unacceptable levels of risk, customers have serious concerns around the public cloud. However, with that said, people see the benefits of the technology and they're looking for ways to improve what they currently offer to internal clients. Solutions that can help customers address security and cost concerns while acquiring some of the benefits of cloud will be welcome.